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AN INTERPRETATION OF THE THEORY OF GESTALT.

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THE student of the theory of Gestalt is inevitably impressed by the immense output of experimental and theoretical researches which this school has inspired. Enquiry extends to almost every aspect of Psychology. The evidence is frequently arresting and the concepts involved are most interesting. The student's most pressing need, however, is some interpretation of the theory of Gestalt which will indicate the relationship between the various concepts and thus provide a basis from which the significance of the many forms of evidence may be evaluated.

In offering such an interpretation, it is relevant at the outset to examine the definition of the term Gestalt; and thence to proceed to the discussion of other associated concepts.

The term Gestalt, for which a near English equivalent is 'configuration', is thus defined by Köhler: "When spatial, visual, auditory and intellectual processes are such as to display properties other than could be derived from their parts in summation, they may be regarded as unities illustrating what we mean by the word Gestalten."¹

It will be noted that the concept of Gestalt applies to *processes*.

By way of amplification of this definition, another significant statement by Köhler may be cited. In reviewing

¹ Köhler, W., "Die physischen Gestalten in Ruhe und im stationären Zustand. Eine naturphilosophische Untersuchung", 1920. For trans. and series of abstracts see Ellis, W. D., "A Source Book of Gestalt Psychology" (Kegan Paul, 1938), which includes an introduction and expression of approval by Koffka. Present reference, Ellis, *op. cit.*, p. 17.

the well-known example, that of the single tones which, if taken together, form a 'configuration' or melody, he remarks: "Not only must the stimulations occur in a single phenomenal (or physiological) system, but they must also be able to influence one another reciprocally. . . ."¹

Apparently then, the emergence of the characteristic Gestalt or configurational properties depends upon the ability of the various individual parts to influence one another. It is this quality of mutual influence between the individual parts or factors in the process, which differentiates the Gestalt from the aggregate or sum of the parts; a differentiation which is clearly made in Köhler's definition of a 'pure sum' or aggregate. The definition is: "An aggregate of 'parts' or 'pieces' is a genuine 'sum' only when its constituents can be added together one after another without thereby causing any alteration in any of them; and conversely, a summation is that kind of pure togetherness from which any one or more units may be removed without any effect either on the ones remaining or on the ones removed."² Erich Becher has indicated a natural corollary. It is—that in putting together the individual members, nothing new may arise which was not a quality of the distinct parts.³

Clearly, then, a basic condition, one which is essential for the emergence of Gestalten or configurational properties, is the ability of the individual parts or participating factors to influence each other. This condition is the 'sine qua non' of Gestalt theory. There are, throughout the literature of Gestalt theory, other important concepts which may be related to this basic concept. In order to examine them, it is proposed to treat first, the dynamic or formative phase of processes and then the more static or near-equilibrium phase. Admittedly, this division is an arbitrary one. The precise differentiation between the two phases would be difficult to define. But, generally, and as an analytical device, processes may be

¹ Ellis, *op. cit.*, p. 25.

² *Ibid.*

³ Becher, E., "W. Köhler's physikalische Theorie der physiologischen Vorgänge, die der Gestaltwahrnehmung zugrunde liegen". *Zeitsch. f. Psych.*, 1921, 87, p. 10—"dass bei der Zusammenstellung der Summentelle nicht Neues, den gesonderten Teilen nicht Zukommendes entsteht".

conceived as consisting broadly in a more formative or more active phase, and a less active phase, which is nearer equilibrium. The definition of the end-result of a process would, likewise, be somewhat arbitrary; but, as indicated, the above are assumptions for the purpose of analysis.

THE DYNAMIC PHASE.

If the reciprocity of influence between the interacting parts or factors of a process is the basic and essential condition for the existence of Gestalten, any factors which affect the degree and nature of this interaction of influence, are also very significant.

At least five concepts are involved here. They are:

- (i) The properties of the individual parts or factors in the process.
- (ii) The properties (notably the inertia) of the medium which connects or lies between the various individual parts or interacting factors.
- (iii) The distance between the parts or interacting factors.
- (iv) The concept of 'wholeness'.
- (v) What may be termed 'factors of rigidity or constraint'. These are frequently, but not always, associated with topography.

To illustrate the significance of these concepts, reference to a physical process or event is perhaps in order. Let the reader form an image of a pool at the confluence of a number of streams. Further, let it be supposed that the surface of this pool is structured, or covered with a configuration or pattern of storm refuse, leaves, twigs, etc. The pattern, considered statically, is the resultant or equilibrium phase of a process from which have emerged properties, which could not be derived from the purely summative treatment of the individual parts or participating factors. Like Köhler's examples of electrical fields, the process reveals Gestalt or configurational properties.

But for the moment, the more dynamic or formative phase is under consideration, and in particular, the concepts which are enumerated above.

In this dynamic or formative phase, the flow of water from each of the inflowing tributary streams may be regarded as the individual parts of participating factors. They influence one another and the resultant is the observed pattern. This pattern may change continuously. It is not necessarily static. It may change within itself and then, too, the whole pattern may move slowly in a downstream direction. There may be small local eddies to which the contribution of the main stream is relatively slight; and occasionally it may happen, that the dominance of local currents at some point, because of the distance from the main direction of flow and the inertia of the water, is sufficient to detach a portion of the main pattern. In this way, small, local and relatively detached patterns may be set up. If the distance, the inertia of the water and the energy of the local currents remained the same, a stronger current in the main direction of the stream might have the effect of integrating this local pattern into the main pattern.

Clearly, the distance between the interacting factors or sources of energy, and the inertia of the medium between them, are important concepts; and they must be conceived as relative to one another and to the properties of the individual parts or factors which interact in the process.

In Köhler's example of the electrical field which is in equilibrium, even the insertion of some delicate testing instrument introduces a factor which has repercussions at distant parts of the field. Here, the medium is particularly sensitive. Disturbances of very small energy quickly influence all of the other parts of the system and a new distribution or configuration of energies rapidly evolves.

In another medium, such as living tissue, the irradiation of influence is not so rapid, but the particular properties of the medium between the various centres of excitation or activity ensure a particularly intimate mode of reciprocal

influence; and this is reflected in the resultant patterns or equilibria which are formed.

A very simple illustration of the importance of the concept of 'distance' is provided in the phenomenon of 'physiological isolation',¹ which may occur in some processes in living tissue. In simpler organisms, hydroids, for example, the apical or head end is a dominant region which exerts varying degrees of influence upon the lower and generally less metabolically active regions of the organism. But if the size of the body increases sufficiently, the region most distant from the apical or dominant end may become physiologically isolated. A reduction in the activity of the dominant region, a blockage of the transmission of influence from the dominant region and prolonged stimulation of a portion of the organism may produce the same result. In this way, the influences of the head or dominant region may cease to make significant contributions to the processes within distant portions of the organism.

The 'distance' between the interacting factors is an important concept for Gestalt theory. But 'distance' must always be considered as relative to the properties (notably the energy) of the interacting parts or factors, and the properties of the intervening medium. Perhaps the literature of Gestalt would have gained in clarity if these concepts had been stressed as centrally important, in association with the contention that the concepts of Gestalt theory apply to processes.

Köhler indirectly does concede the importance of this concept of 'distance'. In dealing with visual phenomena, he remarks: "as with inorganic physical Gestalten, so here we must distinguish between *degrees*² of inner coherence, within the system. Thus, although the moments³ of each minute region are in principle dependent upon the conditions of the

¹ See Child, C. M., "The Origin and Development of the Nervous System", Univ. Chicago Press, 1921, pp. 102-5.

² Italics in the original.

³ Moment: the density of charge at a particular part.

entire system, their dependency varies according to a distance function . . .”¹

The distance between the participating factors may also, in many cases, partly explain what Köhler has called “degrees of inner-coherence”. Very probably, the same idea is embodied in the much used terms, ‘strong’ and ‘weak’ Gestalt. The parts or the individual factors of a ‘strong’ Gestalt have a particularly strong influence upon each other. Disturbances of the equilibrium position are not so readily produced and, when initiated, are usually followed by a rapid attainment of equilibrium.

The same notion of degrees of influence or inner-coherence between the parts, has been recognised by Becher² in his classification of types of Gestalten into, broadly, three types, namely:

- (a) *The not-causally-coherent Gestalt (Nicht-kausalkohärente Gestalt)*. The example given is that of three straight pieces of wire lying on a table.
- (b) *The locally-causally-coherent Gestalt (Lokal-kausalkohärente Gestalt)*, in which only the neighbouring parts can influence each other.
- (c) *The universally-causally coherent Gestalt (Universal-kausalkohärente Gestalt)*. The familiar example of the electrical field is given. Of this Becher remarks: “Because here generally even the smallest part (‘Moment’) of the Gestalt stands with every other (part) in a functional or direct connection of strength.”³

In Gestalten of this type, the contribution of any part or factor, and in particular of distant factors, is difficult to assess. In the aforementioned example of the pool, the factors or forces of the local Gestalt, while relatively dominant within the local context, did receive some contribution from the energies of the main stream. This relatively slight contribution from the main stream could result in the local Gestalt or

¹ Ellis, op. cit., p. 37.

² Op. cit., pp. 13-14.

³ Op. cit., p. 14: “Weil hier allgemein jedes Teilchen (‘Moment’) der Gestalt mit jedem anderen in Wirkungs- oder Kräftezusammenhang steht.”

configuration being different from what it otherwise would have been.

It is in this sense that the concept of 'wholeness' derives its fullest significance. The final result of a process owes something to all those influences which, had they not interacted precisely as they did, would have given a different result.

In practice, the natural limitations to a diffusion of influence between the factors involved in a process are provided by the inertia of the medium which lies between the various parts or centres of energy or activity, in relation to the distance between these parts and the properties of these parts or factors themselves.

Theoretically, events or processes may influence very distant processes, if the energy of the processes and the inertia of the intervening media are appropriate. Köhler's attitude to this position, which he calls "universal interactionism", is as follows: "The *size* of an area beyond which interaction between a process and its surroundings may be ignored is a matter for specific determination." And again: "Whereas the doctrine of universal interactionism results in no responsible scientific enquiry, but leads in practice to a purely additive point of view, consideration of finite structures deals instead with definite, non-additive properties. The Gestalt principle, in harmony with its own empirical objects, involves a *finite* application and leads therefore to direct results."¹

This is definitely an empirical position. In scientific investigation, it is frequently impossible to assess accurately some influences bearing upon the process studied. For practical purposes, we are compelled to ignore them. But such considerations, while of practical importance, cannot be urged as justification for a theoretical position and a view of reality. A refinement in experimental technique may bring some hitherto ignored influences within the range of assessment. An event or process may be conveniently explained by reference to local factors or conditions, but it is not thereby fully explained. The recognition of the possibilities of causal

¹ Ellis, *op. cit.*, pp. 30 and 31.

contributions to any event or process, from distant events or processes, does not necessarily lead to "a purely additive point of view". But this point will be considered further at a later stage.

There is one further concept associated with the dynamic phase which merits consideration along with the concepts of 'medium' and 'distance'. This is the concept of 'factors of rigidity or constraint'. These are factors which restrict or in some way constrain the free interaction of the participating factors. With the possibilities of interaction reduced, the nature of both the dynamic and the more static phases of the process is altered and, in this sense, the presence of the so-called 'factors of rigidity or constraint' is reflected in, or makes some contribution to the process. In the example of the pool at the confluence of a number of streams, the wearing in of a deeper channel through the pool may provide such a 'factor of rigidity or constraint'. So too, in the development of symmetrical patterns in lower organisms, the specialisation of certain portions of tissue may limit the possibilities of readjustment to disturbances of the natural symmetry.

However, the predominance of one non-topographical factor may introduce a certain fixity or rigidity into the process. The sheer predominance of its influence may hinder the scope of the mutual interaction of the other parts. The dynamic phase is thus altered and so, eventually, is the more static phase which may now be considered.

THE MORE STATIC OR NEAR-EQUILIBRIUM PHASE.

There are, broadly, three concepts associated with this phase. They are:

- (i) Equilibrium or 'Requiredness';
- (ii) 'Closure';
- (iii) *Prägnanz*.

The movement of processes towards a condition of equilibrium is a commonplace in chemical and physical science. Köhler has referred to this movement towards an equilibrium position, or a condition of maximum reconcilia-

tion of all forces, as the 'Law of Dynamic Direction' and again, as "development . . . in the direction of minimum energy in the ultimate structure".¹ He has another term 'requiredness', which he describes as follows: "Within the context in question requiredness is a *dependent* characteristic that has no existence of its own, apart from the entities that fit or do not fit each other in these contexts."²

This apparently compelling quality of the context, which, in the attainment of equilibrium, may appear to accept or reject certain properties of the individual parts or factors, is closely related to the concept of 'closure'. When a process is 'closed', equilibrium has been attained. In processes where the degree of mutual influence between the interacting factors is high, the context of such influences *requires* that only certain appropriate influences or factors can 'close' the process and thus make equilibrium possible.

To conceive of 'closure' as a condition achieved by some mysterious, intelligent or animate property of a whole set of interacting influences, is quite unnecessary. This suggestion does arise in much of the literature of Gestalt theory; probably because in many of the experimental studies of this school and in particular, those associated with perception, the matrix of interacting influences is extremely complex and the immediate cause of the attainment of equilibrium is thus difficult to discern.

One further feature of the equilibrium phase of Gestalt processes is the quality of 'Prägnanz' or Precision. Koffka defines the law of Prägnanz as follows: "Psychological organisation will always be as 'good' as the prevailing conditions allow. In this definition the term 'good' is undefined. It embraces such properties as regularity, symmetry, simplicity and others which we shall meet in the course of our discussion."³ A high degree of Prägnanz is reflected in a high degree of symmetry or Precision in the resultant pattern.

¹ Ellis, *op. cit.*, p. 52.

² Köhler, W., "The Place of Value in a World of Facts"; *Liveright*, New York, 1938, p. 336.

³ Koffka, K., "Principles of Gestalt Psychology" (Kegan Paul, London, 1936), p. 110.

Where the interacting factors of the process are in intimate and strong connection and free to adjust themselves, the degree of precision and symmetry in the resultant pattern is usually high. But as indicated earlier, 'factors of rigidity or constraint' may also make some contribution to the degree of *Prägnanz* in any resultant. In general, such factors of constraint render the degree and nature of the *Prägnanz* of the equilibrium phase easier to predict and more resistant to change.

The bi-laterally symmetrical patterns or structures in lower organisms may be regarded as examples of highly *Prägnant* resultants or equilibrium states of processes, in which the various sources or centres of activity have an intimate degree of influence upon one another. This represents the more static phase of the process, the phase which follows the formative phase; the stage at which 'closure' or equilibrium has been attained; the phase at which the resultant, even if temporary, may reveal qualities of symmetry and *Prägnanz*.

With the 'closure' of the process, it is perhaps advisable to summarise the findings of the foregoing analysis. They are:

- (i) The essential condition for the emergence and existence of Gestalten or configurational properties is the ability of the interacting parts or factors to influence each other.
- (ii) The properties of the individual parts or participating factors, in relation to the properties (notably the inertia) of the intervening medium, and in relation to the distance between the parts, in large measure influence the degree and nature of this reciprocal influence.
- (iii) The so-called 'factors of rigidity or constraint' may influence the nature of the dynamic phase and, therefore, the nature of the more static or near-equilibrium phase.

- (iv) 'Requiredness' and 'closure' are descriptive terms which apply to the attainment of equilibrium.
- (v) *Prägnanz* is another descriptive term which is applied to the more static phase and refers directly to the degree of precision and symmetry of the resultant pattern.

It should be remembered, that with the attainment of equilibrium, the reciprocity of influence between the parts or participating factors is not necessarily terminated. Disturbances of equilibrium may be followed by readjustment and the emergence of different configurational properties.

From the foregoing analysis, it will be apparent that the notion of Gestalt, since it applies to processes, may extend to the resultant or equilibrium phase of the process and also to the more dynamic or formative phase which precedes the attainment of this equilibrium.

The various concepts to be found in the literature of Gestalt theory may thus be related to the way in which events or processes take place. It has so happened that the philosophy of Gestalt has been chiefly concerned with the consideration of events and processes in which the interacting parts have a considerable and particularly intimate form of influence upon each other; namely, the complex matrix of interacting causal influences which are responsible for the various forms of perception.

In such processes, the characteristic Gestalt properties are readily observable and impressive. But one of the clearest implications from the concept of 'wholeness' is the recognition of the causal significance of very small influences which contribute to the event or process. So too, by implication, Gestalt theory would generally emphasise the inadequacy of causal explanations in terms of single causes or factors. The full and precise causal explanation of every event or process involves a matrix of interacting influences. It involves a precise knowledge, not only of the interacting factors themselves, but also of the manner in which they influence each other.

Now it has been suggested above that events or processes which reveal Gestalt or configurational properties may take place in a variety of media. The medium, as emphasised, will affect the nature of the process. But if differences in the properties of media are admitted, the ramifications of the above attitude to causal explanation are extensive.

There are some who would not accept this view. Driesch is perhaps the most outstanding. He claims that the concepts of Gestalt can only apply in the medium of living tissue; that the changes or patterns produced in Köhler's example of the electrical field are mere 'Wirkungseinheiten' or functional unities; that the charges or properties of various parts of the electrical field are simply 'Randbedingungen' or surface conditions, and do not spring from the intrinsic properties of the parts themselves. As evidence of this view, he writes: "This shows exactly, that physical inorganic structures are not of themselves, out of their intrinsic properties, wholes. They themselves out of their intrinsic properties are only functioning unities, and each whole in their case (in physical inorganic structures), if in the deeper sense of the word 'whole', such wholeness exists at all, is forced upon them through something foreign, namely the aforementioned properties of the topography."¹

Now, whether the medium in which the process takes place is electrical or of living tissue, the contribution of each individual factor is influenced by the context or the contributions made by the other factors and their various modes of reciprocal influence. In any case, the functional properties are the significant properties, when the individual parts or factors interact in a process. That these functional properties are sometimes intrinsic and sometimes derived, does not destroy the essential condition for the existence of Gestalten,

¹ Driesch, H., "Physische Gestalten und Organismen", *Annalen der Philosophie*, 1925, 5, p. 5: "Es zeigt aber gerade, dass physische unbelebte Strukturen *nicht aus sich*, nicht aus ihrem eigenen Wesen heraus Ganzheiten sind. Sie selbst sind aus eigenem Wesen heraus nur Wirkungseinheiten, und alle 'Ganzheit' an ihnen, wenn anders sie überhaupt im tieferen Sinne des Wortes *ganz* besteht, ist ihnen durch fremdes, nämlich eben durch die 'Topographie' aufgezungen."

which is—the ability of the parts or factors to influence each other.

While the processes in living tissue, which Driesch concedes are Gestalten, do display certain distinctive properties, due to the properties of the medium, they are similar in principle to the processes which Köhler describes.

Thus, to repeat, it is maintained that, so long as the essential condition is fulfilled, namely the ability of the interacting factors to influence one another, Gestalt properties may arise from processes in a variety of media. Some of the implications of this view will now be treated.

A VIEW OF CAUSATION AND EXTERNAL REALITY.

The very significant statement by Köhler, which condemns any attempt to recognise the theoretical significance of causal contributions outside the local context of causal influence, has already been quoted. The position which does recognise the possibilities of a diffusion of influence over appreciable distances is termed by Köhler 'universal interactionism', and he dismisses it, to quote again, as follows: "Whereas the doctrine of universal interactionism results in no responsible scientific enquiry, but leads in practice to a purely additive point of view, consideration of finite structures deals instead with definite, non-additive properties. The Gestalt principle, in harmony with its own empirical objects, involves a *finite* application and leads therefore to direct results. It would be indeed surprising if these results were not apparent in the treatment of biological and psychological problems."¹

Now this is clearly a practical, convenient and empirical position. That the position of 'universal interactionism' involves a profusion of variables in the explanation of an event or process, is not denied. But profusion is not necessarily confusion.

As pointed out earlier, there are certain natural limitations to the scope or extent of such interaction. In any case,

¹ Ellis, *op. cit.*, p. 31.

the acceptance of a reciprocal influence between sources of energy or events, conditional upon the properties of the intervening medium and the distance between them, is the acceptance of a fundamental theoretical position which is the very basis of processes which are described as Gestalten. This position has been conceded by Köhler¹ in reviewing the criteria of von Ehrenfels and also in his repeated assertion, that if, in the electrical field, the individual parts were insulated from each other, then no Gestalten or configurational properties would emerge.

In addition, the position of 'universal interactionism', with the natural limitations which have been pointed out, is in agreement with observation. An explosion in Europe is not heard in Australia. The intervening distance is great. The energy of the sound waves is soon dissipated by the air. Yet the same distance does not prevent a disturbance of greater energy from being transmitted to Australia by a different medium. A seismograph, a refined instrument, will register the repercussions of a disturbance at Etna.

Again, the position of 'universal interactionism' is consistent with the very opposite of "a purely additive point of view". The natural limitations to the diffusion of influence and the relative crudeness of our methods of observation enable us to treat many events or processes discretely and even to think of them additively. But to claim that such an admittedly empirical position is the true one, is to deny the whole basis of processes which reveal Gestalt properties.

The general standpoint of Lewin would be in agreement with the present position. In his article, "The Conflict between Aristotelian and Galileian Modes of Thought in Contemporary Psychology",² he points out that all events, including apparently accidental occurrences, are lawful, in that their occurrence and nature could be predicted, if all the factors which contributed to this occurrence were known and

¹ See above, p. 194: "for not only must the stimulations occur in a single phenomenal (or physiological) system, but they must also be able to influence each other reciprocally" (Ellis, *op. cit.*, p. 25).

² See Chap. 1 in "A Dynamic Theory of Personality" (trans.), McGraw-Hill, 1935.

could be measured. In another reference, he reveals a theoretical position which conflicts with Köhler's condemnation of 'universal interactionism'. He writes: "Thus each single everyday experience of the past may somehow influence the present psychic life. But this influence is in most cases to be evaluated in just the same way as the influence of the specific changes of a fixed star upon the physical processes in my study: *it is not that an influence exists, but that the influence is extremely small, approximately zero.*"¹

Lewin's analysis generally is an effective answer to some of Driesch's criticisms of Gestalt theory, and in particular to his tilt at Koffka; "Koffka again and again repeats that apart from Vitalism and Mechanism—(perhaps even between Determinism and Indeterminism?)—there is a third position, the theory of the 'physical Gestalten'. But there can be no such theory because there are no such things as physical Gestalten."²

Now if the foregoing view of reality and causation is accepted, there is no conflict between determinism and indeterminism in scientific explanation. No event or resultant of a process is indeterminate in the sense that it occurs without causation. The most minute vagaries of the flight and bounce of a golf ball have causes. In this sense the vagaries are determined, even though there is an immense profusion of interacting, and thus causal, influences. The vagaries of the flight of the ball do not just happen, even if the prediction or the explanation of these precise variations is beyond our technique of measurement and observation, and is in this sense indeterminate. A whole matrix of interacting or contributing influences are responsible for the slightest variation.

The attitude towards causation which is consistent with Gestalt theory and, in particular, the concept of 'wholeness'

¹ See Chap. 2 in "A Dynamic Theory of Personality" (trans.), McGraw-Hill, 1935, p. 53.

² Driesch, H., "Kritisches zur Ganzheitslehre"; Annalen der Philosophie, 1925, 5, p. 288: "*Koffka* kommt immer wieder damit, dass es neben Vitalismus und Mechanismus—(etwa auch zwischen Determinismus und Indeterminismus?)—ein drittes gäbe, die Lehre von den 'physischen Gestalten'. Aber diese Lehre kann es nicht geben, weil es physische Gestalten *nicht* gibt."

is one which recognises the *causal* significance of all such contributing influences. This is the contribution made by Gestalt theory. Its concepts apply to the way in which events or processes take place and lead to a more realistic attitude towards causal explanation.

ANOTHER ASPECT OF CAUSATION.

Lewin¹ has indicated another aspect of causation which it is perhaps relevant to mention here. He points out that in answer to the question 'why' any event has taken place, a broad distinction can be made between those causal influences which are local and in more immediate relationship to the observed event, and those "historico-geographical"² causes which may be very distant in time from the observed event. For example: if a car skids and strikes a tree, the more immediate or momentary causes might include such factors as the speed of the car in relation to the friction of the surface of the road. But the observed event could not have happened if the tree had not been in a position to arrest the progress of the car. The reasons 'why' the tree came to be in that particular position, and of a size and shape which could arrest the progress of a car, would include causal contributions of the 'historico-geographical' type.

It may be of interest to compare this view of the causal antecedents of an event with a position developed by A. N. Whitehead.³ The term 'value' is used to indicate that the term 'event' is hardly enough to characterise all that has gone into an event. Some indication of this position may appear in the following (p. 131): "Within this specious present the event realises itself as a totality, and also in so doing realises itself as a grouping together of a number of aspects of its own temporal parts. One and the same pattern is realised in the total event, and is exhibited by each of these various parts through an aspect of each part grasped into the togetherness

¹ Lewin, K., "Principles of Topological Psychology" (trans.), McGraw-Hill, 1936, Chap. 5.

² Lewin's term.

³ "Science and the Modern World", Camb. Univ. Press, 1928.

of the total event. Also, the earlier life-history of the same pattern is exhibited by its aspects in this total event. There is, thus, in this event a memory of the antecedent life-history of its own dominant pattern, as having formed an element of value in its own antecedent environment."

Another interesting concept developed by Whitehead is that of 'prehensive unity'. He points out that while it is possible to treat any object or volume as a "mere multiplicity of non-voluminous elements" (op. cit., p. 81), the unity of a volume is the ultimate fact of experience. In this connection he writes: "But the prehensive unity of the volume is not the unity of a mere logical aggregate of parts. The parts form an ordered aggregate, in the sense that each part is something from the standpoint of every other part, and also from the same standpoint every other part is something in relation to it." He goes on to say: "It is evident that I can use Leibniz's language, and say that every volume mirrors in itself every other volume in space."

The inclusion of what might be called the historical aspect of causation in explanations of events clearly emphasises the essential connectedness rather than the discreteness of reality. The more immediate matrix of interacting influences which is responsible for the observed event has progressively more extensive ramifications in the past.

SOME ILLUSTRATIONS.

If, as claimed above, the contribution of Gestalt theory has been to emphasise a particular view or attitude in regard to causal explanation, which has been herein termed the 'matrix' view, then it is necessary to test this interpretation by referring to some of the results which are to be found in psychological and associated literature.

In living tissue, the matrix of interacting influences is so intimate that the properties of the individual parts frequently give no definite indication as to the part they will play in the process of development. Some very clear examples are provided by Jennings in dealing with the embryos of

amphibia. He writes: "A certain set of cells can be pointed out as those that will produce the brain, certain others will produce eyes, others the spinal chord, the skin, the alimentary canal, and so on. It appears as if everything were fixed and determined; as if the fate of every cell were dependent merely on what genes or on what kind of cytoplasm it contains.

But experimental study shows that this is not the case. If, in these early stages, from the region that is to produce the skin, a portion is removed and transplanted to the region that is to produce the brain, then the fate of the transplanted cells is changed. They alter their development, and become part of the brain instead of part of the skin. Or if the reverse transplantation is made, cells that would have formed a part of the brain alter their development and become part of the skin. What the cells become depends upon their surroundings; on what the cells about them are becoming."¹

The results obtained by Emerson² with maize plants emphasise the same 'matrix' view of causation. Red plants produce red offspring. Green plants produce green offspring. If the red and green plants are crossed, the inheritance of colour follows the typical Mendelian proportions. But colour is not determined by the genes alone. Plants bearing red genes are only red if grown in the sunlight. If grown in the shade, they are green. Here, environmental factors contribute to the resultant.

Researches on brain, and in particular, cortical functions are of direct significance for Gestalt theory. The theory of specialisation of functions and of association by specific 'bonds' or 'linkages' has been challenged by the results of Lashley³ and those of Perkins⁴ and Bartley⁵ who followed up

¹ Jennings, H. S., "The Biological Basis of Human Nature", Faber and Faber, London, 1930; p. 94.

² Emerson, R. A., "The Genetic Relations of Plant Colors in Maize"; Memoir 39, 1921, Cornell Univ. Ag. Exp. Station (quoted by Jennings, op. cit., p. 128).

³ Lashley, K. S., "Brain Mechanisms and Intelligence", Univ. Chicago Press, 1929. See also contributions by Lashley to *Psych. Review*, 1924, 31, pp. 369-375, and *J. Comp. Neurology*, 1931, 53, pp. 419-478.

⁴ Perkins, F. T., "A Study of Cerebral Action Currents in the Dog under Sound Stimulation"; *Psych. Monographs*, 1933, 44, pp. 1-29.

⁵ Bartley, H. S., "Gross Differential Activity of the Dog's Cortex as Revealed by Action Currents"; *Psych. Monographs*, 1933, 44, pp. 30-56.

the earlier work of Forbes, Miller and O'Connor¹ and Wever and Bray.²

Lashley has embodied his results in the "Principles of Mass Action and Equipotentiality". As a consequence of his experiments with rats, he claims that the ability of rats to solve maze problems is dependent chiefly upon the absolute mass of brain tissue available, and not upon the locus of the lesion. These results are consistent with a view that envisages patterns or configurations of activity which sweep through the cortex rather than the transmission of impulses along specific 'linkages', 'bonds', or insulated pathways.

Perkins, and more particularly, Bartley, have shown by a rather ingenious pictorial device that such a view is justified, at least for the cortices of dogs. The whole cortex is active, even when the dog is passive. There appears to be a characteristic ground pattern of activity which is only slightly disturbed by stimulation of various kinds. Certain areas given over to the reception of particular types of stimulation may become, as it were, nodal points or peaks in the pattern of activity; but there is considerable irradiation of influence. Activity at any one point has repercussions throughout the cortex. Bartley's own conclusion is perhaps relevant here: "It seems beyond doubt that a given area of the cortex may play a multitude of roles in accordance with the character of the total cortical pattern, that is, in accordance with what is happening in other parts of the cortex."³

These conclusions are based upon experiments with dogs. Now while it is possible that the specialisation of tissue for particular functions is more irrevocable in the human cortex, such a view of cortical functions is consistent with the results of Travis⁴ in the field of speech pathology and with the results

¹ Forbes, A., Miller, R. A., and O'Connor, H., "Electrical Response to Acoustic Stimuli in the Decerebrate Animal"; *Am. Journ. Physiol.*, 1927, 80, pp. 363-380.

² Wever, E. G., and Bray, C. W., "The Nature of Acoustic Response"; *J. Exp. Psych.*, 1930, 13, 5, pp. 373-387.

³ Bartley, op. cit., p. 53.

⁴ Travis, L. E., "Speech Pathology" (Chap. 16 in Murchison's "Handbook of Child Psychology").

of Gelb,¹ Goldstein² and Fuchs³ who studied disturbances of vision consequent upon injuries to the cortices of human beings. It is a view too, from which the significance of the concept of Isomorphism may be examined.

The term Isomorphism occurs frequently in the literature of Gestalt theory. Koffka explains the term as follows: "For we can at least select psychological organisations which occur under simple conditions and can then predict that they must possess regularity, symmetry, simplicity. This conclusion is based upon the principle of isomorphism, according to which characteristic aspects of the physiological processes are also characteristic aspects of the corresponding conscious process."⁴ Or, to quote Köhler's version, "actual consciousness resembles in each case the real structural properties of the corresponding psychophysiological processes."⁵

As Koffka concedes,⁶ this is a bold assumption. But there is much evidence which is consistent with it. There are, for example, the experimental results dealing with qualitative changes during retention.⁷ If subjects study drawings of figures of different shapes, and then reproduce them at progressively greater intervals of time, the reproductions reveal

¹ Gelb, A., "Über den Wegfall der Wahrnehmung von Oberflächenfarben. Psychologische Analyse hirnpathologischer Fälle auf Grund von Untersuchungen Hirnverletzter, IV"; *Zeitschr. f. Psych.*, 1920, 84, pp. 193-257. (Trans. abstract, Ellis, op. cit., pp. 326-332.)

² Gelb, A., and Goldstein, R., "Zur Psychologie des optischen Wahrnehmungs- und Erkennungsvorganges. Psychologische Analyse hirnpathologischer Fälle auf Grund von Untersuchungen Hirnverletzter, I"; *Zeitschr. d. ges. Neurol. und Physiol.*, 1918, 41, pp. 1-143. (Trans. abstract, Ellis, op. cit., pp. 315-325.)

³ Fuchs, W., "Untersuchung über das Sehen der Hemianopiker und Hemiambyopiker. Die totalisierende Gestaltauffassung"; *Zeitschr. f. Psych.*, 1921, 86, pp. 1-143.

⁴ "Eine Pseudofovea bei Hemianopikern"; *Psych. Forsch.*, 1922, 1, pp. 157-187. (Trans. abstract, Ellis, op. cit., pp. 357-361.)

⁵ Koffka, K., "Principles of Gestalt Psychology", p. 109.

⁶ Köhler, W.; Ellis, op. cit., p. 38.

⁷ "Principles of Gestalt Psychology", p. 62.

⁸ I allude here to the studies of:

Granit, A. R., "A Study on the Perception of Form", *Brit. Journ. Psych.*, 1921, 12, 3, pp. 223-247.

Wulf, F., "Über die Veränderung von Vorstellungen (Gedächtnis und Gestalt)"; *Psych. Forsch.*, 1922, 1, pp. 333-373. (Trans. abstract, Ellis, op. cit., pp. 136-148.)

Gibson, J. J., "The Reproduction of Visually Perceived Forms"; *J. Exp. Psych.*, 1929, 12, pp. 1-39.

Allport, G., "Change and Decay in the Visual Memory Image"; *Brit. Journ. Psych.*, 1930, 21, pp. 133-148.

Perkins, F. T., "Symmetry in Visual Recall"; *Am. J. Psych.*, 1932, 44, 3, pp. 473-490.

a progressive improvement in symmetry, simplicity and *Prägnanz* or Precision.

If it is assumed, as in the position of Isomorphism, that the structural features of these figures are in some way represented in cortical tissue, the continual dynamic interaction between these forms of representation could conceivably result in a movement towards more and more stable and symmetrical equilibria. However, such a theory and results, while consistent with the foregoing account of cortical functions, do *not* establish the validity of the position called Isomorphism.

Yet there are many other experimental results in the field of perception which would tend to give Isomorphism the status of a plausible hypothesis. Causal relationships in this dynamic context of neural activity are essentially of the 'matrix' type, in which, frequently, the properties of the individual parts or factors can give little or no clue as to their subsequent behaviour in the process. Such factors as the surrounding context or field, attitude or mental set, habit or usage, and the experience of the subject, have been shown to influence the meaning or interpretation which various persons attribute to the same sensory data.

With the large number of experiments on Brightness¹ and Size Constancy,² explanations in terms of point-for-point

¹ I allude here to the experimental studies of:

Beyrl, F., "Über die Grössenauffassung bei Kindern"; *Zettschr. f. Psych.*, 1926, 100, pp. 344-371.

Brunswik, E., "Zur Entwicklung der Albedowahrnehmung"; *Zettschr. f. Psych.*, 1929, 109, pp. 40-115. (The term "Albedo" is actually a coefficient of reflection; the amount of light reflected from a unit area, divided by the amount of light it receives.)

Burzlaff, W., "Methodologische Beiträge zum Problem der Farbenkonstanz"; *Zettschr. f. Psych.*, 1931, 119, pp. 117-235.

Klimpfinger, S., "Die Entwicklung der Gestaltkonstanz vom Kind zum Erwachsenen"; *Arch. f. d. ges. Psych.*, 1933, 88, pp. 599-628.

Locke, N. M., "Colour Constancy in the Rhesus Monkey and in Man"; *Archives of Psychology*, 1935, 28, No. 193; see also Koffka, K., "Principles of Gestalt Psychology", Kegan Paul, London, 1936.

² Révész, C., "Experiments in Animal Space Perception"; *Proceedings of the VIIth Int. Cong. of Psych.*, Oxford, 1924, pp. 29-56.

Eissler, K., "Die Gestaltkonstanz der Sehdinge bei Variation der Objekte und ihrer Einwirkungsweise auf den Wahrnehmenden"; *Arch. f. d. ges. Psych.*, 1933, 88, pp. 487-550.

Holaday, B., "Die Grössenkonstanz der Sehdinge bei Variation der inneren und äusseren Wahrnehmungsbedingungen"; *Arch. f. d. ges. Psych.*, 1933, 88, pp. 419-486.

Klimpfinger, S., "Über den Einfluss von intentionaler Einstellung und Übung auf die Gestaltkonstanz"; *Arch. f. d. ges. Psych.*, 1933, 88, pp. 551-598.

stimulation of the retina, geometrical optics and photometric calculations do not explain what subjects see, or report as seen. At the same time, none of these constancies are absolute. They are influenced by many properties of the context in which they occur, by such factors as the form or shape of the objects, attitudes of mind and factors of usage or habit.

The experiments with the different forms of apparent movement¹ indicate that a matrix of influences is responsible for these phenomena. Such factors as the time of exposure, the shape of the objects exposed, the context or surrounding field, and the attitude of mind of the subject may influence the phenomena which subjects report. Frequently, a change in any one of these factors may compensate for changes in the other factors, in the sense that a very different combination of intensities of the factors can give the same reported or observed result.

Here again, the process, and the resultant of the process, cannot be explained by reference to one causal factor. The explanation of the event involves reference to a 'matrix' of interacting influences.

SUMMARY.

In seeking an interpretation of the theory of Gestalt, the analysis revealed that the concept of Gestalt applies to processes and particularly to the way in which events or processes take place. The essential condition for the emergence of Gestalten or configurational properties was found to be—the ability of the parts or factors in the process to influence each other.

In considering first, the more dynamic or formative phase of processes, the significant factors which influence the

¹ Lindemann, E., "Experimentelle Untersuchung über das Entstehen und Vergehen von Gestalten"; *Psych. Forsch.*, 1922, 2, pp. 5-60. (Trans. abstract, Ellis, op. cit., pp. 173-181.)

Hartmann, L., "Neue Verschmelzungsprobleme"; *Psych. Forsch.*, 1923, 3, pp. 319-396. (Trans. abstract, Ellis, op. cit., pp. 182-191.)

Ternus, J., "Experimentelle Untersuchung über phänomenale Identität"; *Psych. Forsch.*, 1926, 7, pp. 81-136. (Trans. abstract, Ellis, op. cit., pp. 149-160.)

Duncker, K., "Über induzierte Bewegung (Ein Beitrag zur Theorie optisch wahrgenommener Bewegung)"; *Psych. Forsch.*, 1929, 12, pp. 180-259. (Trans. abstract, Ellis, op. cit., pp. 161-172.)

reciprocity of influence between the parts or factors of the process were found to be

- (i) the properties of the individual parts or factors,
- (ii) the properties of the intervening medium,
- (iii) the 'distance' between the parts or factors,
- (vi) 'factors of rigidity or constraint'.

It was emphasised that these factors operate relatively to one another. The concept of 'wholeness' was found to apply to both the dynamic and the more static phase of the process. The resultant or equilibrium position of the process derives some contribution from the whole matrix of interacting factors or influences which are responsible for the resultant being precisely what it is.

The recognition of the *causal* significance of even small contributions to an event or process is consistent with the concept of 'wholeness' and with the 'matrix' view of causal explanation. This view of causal explanation is the consistent implication of the theory of Gestalt and the many experimental results associated with this school.

TIME: A TREATMENT OF SOME PUZZLES.¹

By J. N. FINDLAY.

THE aim of this paper is to inquire into the causes of some of our persistent perplexities with regard to time and change. We do not propose to offer a solution for these difficulties, but rather to make clear how they have come to worry us. For we shall suggest that they have their origin, not in any genuine obscurity in our experience, but in our ways of thinking and talking, and we shall also suggest that the clear consciousness of this origin is the only way to cure them. It is plain that we do not, in any ordinary frame of mind, find time so hard to understand: we are in fact always competently dealing with what we may describe as 'temporal situations'. We are dealing with such situations whenever we say, without hesitation or confusion, that this lasted longer than that, that this took place at the same time as that, that this has just happened or that that will happen soon. We have no difficulty in showing other people what we mean by such forms of statement, nor in getting them to agree that we have used them truly and appropriately. Yet all these forms of statement, and the situations to which they refer, seem capable of creating the most intense perplexity in some people: people are led to say that time is 'paradoxical', 'contradictory', 'mysterious', and to ask how certain things are 'possible' whose actuality seems obvious. Thus it has been asked how it is 'possible' for anything to reach the end of a phase of continuous change, or how it is 'possible' for that which *is* the case ever to cease being the case, or how it is 'possible' for the duration of any happening to have a length and a measure. In all such cases it seems

¹ It will be obvious that the basic ideas of this paper derive from Wittgenstein.

reasonable to say that the burden of proof that there *is* a genuine problem or difficulty is on the person who feels it, and not on the person who refuses to depart from ordinary ways of speaking. And it certainly does seem odd that people who have always had to deal with changing objects and situations, and whose whole language is perfectly adapted to dealing with them, should suddenly profess to find time so very strange. If time is so odd, we may very well ask, in terms of what things more familiar and understandable shall we proceed to explain it or to throw light on its possibility? We may indeed regard it as a strange disorder that people who have spent all their days 'in time', should suddenly elect to speak as if they were casual visitors from 'eternity'. And it must be our business to cure them of this disorder through a clear awareness of its causes. There is indeed 'a short way with puzzlers' who inquire into the 'possibility' of perfectly familiar and understandable situations: we may simply point to some instance of the kind that perplexes them and say: 'That's how it is possible for so-and-so to be the case.' Thus if a man were to ask me 'How is it possible that that which *is* the case should cease to be the case?', I might simply crook my finger and say 'Now my finger is crooked', then straighten it and say 'Now it has ceased to be crooked. And that's how it's possible for that which *is* the case to cease being the case.'² But such an expedient, though perfectly proper in itself, and more than a man has a right to ask for in most cases, would not suffice to allay our questioner's perplexity, since he, presumably, is quite as familiar with ordinary usage as we are.

A treatment of the puzzles of time will also serve to illustrate a treatment which might be applied to many other questions and difficulties. For some people quite readily fall into a mood in which they feel that there is something mysterious and doubtful about things that they would

² The example given and the general method indicated was suggested by Professor Moore's proof that external objects exist. He proves that there are such objects by proving that there are two human hands, the latter being proved 'by holding up his two hands, and saying as he makes a certain gesture with the right hand, "Here is one hand", and adding, as he makes a certain gesture with the left, "and here is another"'. (*Proof of an External World*, p. 25.)

normally regard as elementary and obvious. They are then led to ask questions which seem queer, because it is not in the least plain how one should set about answering them. Thus a man may wonder how it is possible for a number of distinct things to share in the same quality, or whether he really is the same person from year to year, or why *this* world exists rather than any other. Now in ordinary unreflective moods we should regard these questions as either unanswerable or not worth answering, but our questioner plainly wants an answer and he doesn't want an obvious answer. It is plain, in particular, that we couldn't remove our questioner's perplexity by 'appealing to experience', by pointing to anything that both he and we could observe. For he *has* all the kinds of experience that could throw light on his problem, and yet he is puzzled. It seems clear that, where the simplest and most familiar instances of something occasion profound perplexity, we cannot hope to remove such perplexity, or even to allay it, by indefinitely accumulating other instances of the same kind, some of which would be strange and others highly complex. We are accordingly brought back to our supposition that there are some questions which beset us, not because there is anything genuinely problematic in our experience, but because the ways in which we speak of that experience are lacking in harmony or are otherwise unsatisfactory. We are sometimes thrown into a mood of interrogation not because we are in quest of further facts, but because we are in quest of clearer, or less discordant, or merely different ways of verbally dealing with those facts. Such moods of questioning plainly have no answers, in any ordinary sense of 'answer'; we may nevertheless hope to relieve them by becoming clearly conscious of the underlying needs that prompt them, and by deliberately adopting ways of talking that provide appeasement for those needs.

There are other reasons why there is interest in our difficulties with regard to time. These difficulties form a relatively self-contained group of puzzles, which do not seem to share their entrails with too many other philosophical

problems. We can find time difficult without finding anything else difficult, but we couldn't be puzzled by matter or mind or knowledge, without being puzzled by practically everything else. Hence we can deal more cleanly with these temporal puzzles than with other issues; they provide, accordingly, a simpler paradigm of method. These puzzles are also important in that philosophical difficulties seem to flourish more readily in the temporal field than in almost any other. It would be safe to say that rapid change and the 'nothingness of the past' are things which can always be relied on spontaneously to vex a large number of unsophisticated people, and so to constitute one of the standing mysteries of our universe. We have reason, of course, to suspect such generalisations; for we know nowadays that there is no way of ascertaining the philosophical reactions of unphilosophical commonsense, except by testing and questioning large numbers of people.³ But in the absence of such testing, vague experience certainly bears witness to the generality of such puzzlement.

We may now point to a circumstance which is certainly responsible for *some* of our difficulties with regard to time. This is the fact that it is possible to persuade a man, by an almost insensible process, to use certain familiar locutions in ways which become, on the one hand, steadily wider and more general, or, on the other hand, steadily narrower and stricter. This persuasive process is only one of the many processes by which an able dialectician can twist or stretch or shift or tear apart the web of words with which we overlay our world. In doing so, he relies on the fact that the boundaries of linguistic usage are seldom clear, that there are always ranges of cases in which it is simply doubtful whether a given locution is or is not applicable, and that there are, in addition, a number of deep-seated tendencies in language which facilitate linguistic shifts in certain directions. In the particular case we are now considering there are, it is plain, words and phrases whose use very readily widens: it is easy to persuade a man that they really *ought* to be used in

³ See, e.g., Arne Ness's *Truth as conceived by those who are not professional philosophers*, Oslo, 1938.

cases in which it has never before occurred to anyone to use them. And it is also plain that there are words and phrases whose use very readily narrows, so that we are easily persuaded to say that it was 'wrong' or 'improper' to use them in cases where we previously used them without hesitation. And it is possible for the adroit dialectician, by making repeated use of a big stick called 'consistency', on the one hand, and another big stick called 'strictness', on the other hand, to persuade us to use such forms of speech so widely that they apply to everything, or so narrowly that they apply to nothing: the result in either case is to turn a serviceable mode of speaking into one that is totally unserviceable. Good examples of these dialectical processes would be arguments which led us to use the term 'know' so widely, on the one hand, that we might be said, like the monads of Leibniz, always to know everything, or so narrowly, on the other hand, that we might never be said to know anything. There is, of course, nothing in such an exaggerated width or narrowness of reference which *necessarily* leads to paradoxes or problems. If we persuade a man to use words in new ways, we disorganise his linguistic habits for the time being, but there is no reason why he should not rapidly build up a new set of habits, which will enable him to talk of ordinary situations as plainly and as promptly as before. But the trouble is that such a sudden change of usage *may* produce a temporary disorientation, it is like a cerebral lesion from which an organism needs to recover, and in the interval before recovery sets in, and new connections take the place of the old, a man may readily become a prey to serious confusions. For even after a man has been persuaded to use certain phrases in totally new ways in certain contexts, he may still hark back to old uses in other contexts: he may even try to incorporate both uses in the same context, thus giving rise to statements and questions which cannot be interpreted in either way of speaking.

Now in regard to time it is plain that there is a strong tendency in language to use terms connected with the 'present'

in an ever stricter manner, so that, if this tendency is carried to the limit, the terms in question cease to have *any* application, or, at best, a novel and artificial one. It is also plain that *some* of the problems of time are connected with this fact. We can readily be persuaded to use the present tense and the temporal adverb 'now' (as well as the imperfect past and imperfect future tenses and the words 'then', 'at that time', etc.) in stricter and stricter ways; and if we yield completely to such pressure, our normal habits of speech will be disorganised. Our use of the present tense and of the temporal adverb 'now' is not very strict in ordinary circumstances: we are prepared to say, even of happenings that last a considerable time, that they are happening *now*, e.g. we say 'The National Anthem is now being sung', 'The Derby is now being run', etc. Now the present tense and the temporal adverb 'now' *might* have been the sort of speech-form that we tended to use more and more widely, so that we might easily have been persuaded to say 'The history of England is now running its course', 'The heat death of the Universe is now taking place'. We might then have been persuaded to allow that, since a *whole* cannot be happening now, unless all its component *parts* are also happening now, John is now really signing Magna Charta, life on the earth is now really extinct, and so on. The problems that this way of speaking might occasion, would certainly be serious. The natural development of the speech-forms we are considering does not, however, lie in this direction. We tend rather, if pressed, to use the present tense and the temporal adverb 'now' more and more narrowly: thus if we had said that the National Anthem was being sung, and someone asked us 'But what are they singing *just now*?', we should not widen our reference to cover the whole evening's concert, but narrow it to apply to some line or phrase or word or note of the National Anthem. Now since our tendencies lie in *this* direction, we can readily be persuaded to give up saying that anything which takes an appreciable time is happening now. We can be bullied into admitting that this is a 'loose' and 'inaccurate'

way of talking. And it is possible to force us to grant that the really strict speaker would not use these forms of speech in the case of anything but a happening which was so short that it took *no time at all*. Thus we might force a man first to admit that nothing which was *past*, nothing which was *no longer there*, could possibly be said to be happening now. We might then press him to admit the additional principle that nothing of which a *part* lay in the past could properly be said to be happening now. We might then persuade him to grant, with regard to any happening that 'takes time', that it doesn't happen 'all at once', but that it has parts which happen one after the other, and that, when any *one* of these parts *is* happening, all the *other* parts either *have* happened or *will* happen. It then becomes easy to prove that no happening which takes time can properly be said to *be* taking place, and that the only parts of it of which such a thing could ever be rightly said, would be parts that took *no time at all*.⁴

In all these arguments we are being persuaded to apply linguistic principles which are established in the case of happenings of *fairly long duration*, to happenings of very short duration; we are not obliged, but can be readily pressed,

⁴ The typical historical case of this argument is Augustine, *Confessions* (Book XI: 19, 20): 'Are an hundred years, when present, a long time? See first, whether an hundred years can be present. For if the first of these be now current, it is present, but the other ninety and nine are to come, and therefore are not yet, but if the second year be current, one is now past, another present, the rest to come. And so, if we assume any middle year of this hundred to be present, all before it are past; all after it to come; wherefore an hundred years cannot be present. But see at least whether that one which is now current itself is present; for if the current month be its first, the rest are to come; if the second, the first is already past, and the rest are not yet. Therefore neither is the year now current present; and if not present as a whole, then is not the year present. For twelve months are a year; of which, whatever be the current month is present; the rest past, or to come. Although neither is that current month present; but one day only; the rest being to come, if it be the first; past, if the last; if any of the middle, then amid past and to come. See how the present time which alone we found could be called long, is abridged to the length scarce of one day. But let us examine that also; because neither is one day present as a whole. For it is made up of four and twenty hours of night and day; of which the first hath the rest to come; the last hath them past; and any of the middle hath those before it past, those behind it to come. Yea, that one hour passeth away in flying particles. Whatsoever of it hath flown away is past; whatever remaineth is to come. If an instant of time be conceived which cannot be divided into the smallest particles of moments, that alone is it, which may be called present, which yet flies with such speed from future to past, as not to be lengthened out with the least stay. For if it be, it is divided into past and future. The present hath no space. Where, then, is the time which we may call long?'

to be 'consistent' in this manner since there are no clear lines between the long and the short. But the result of yielding to this pressure is to turn a serviceable way of talking into one that has no use. For it is obvious that all the happenings that we can point to (in any ordinary sense of 'point to') take time, and that pointing itself takes time, so that if the only happenings of which we may say 'This is happening now' are happenings which take no time, there are no happenings which we can point to, of which we may say 'This is happening now'. Now this does not, of course, imply that a clear and useful meaning cannot be given to phrases and sentences which mention happenings that take no time: it is plain, in fact, that very clear and useful meanings *have* been given to them by a long succession of mathematicians and philosophers. But it is also plain that these new forms of diction may, at first, merely serve to disorganise existing speech-habits, and that, while this lasts, we may fail to give any clear or serviceable meaning to 'happenings which take no time'; we may tend to talk of them as if they were happenings we could point to, in the same sense in which we can point to happenings which *do* take time, and we may further credit them unthinkingly with many of the properties of happenings which *do* take time. Such ways of talking, it is plain, must lead to many quite unanswerable questions.

After this preliminary consideration of *one* source of our temporal difficulties, we may turn to Augustine's problem in the eleventh book of the Confessions. This we may phrase as follows: 'How can we say of anything that it lasts a long time or a short time? How can a time have length? And how can that length be measured?'⁵ What was it, we may ask, that Augustine found so difficult in the length and measure of time? We may perhaps distinguish three aspects of his bewilderment, which might be grounds for anyone's bewilderment. He found it difficult, in the first place (we may suppose), to see how happenings which take *no* time

⁵ The interest in Augustine as a case of philosophical puzzlement is due to Wittgenstein.

could ever be 'added up' to make the happenings which *do* take time.⁶ This difficulty is not peculiar to our thought of time, but applies to space as well. It seems absurd to say that an accumulation of events, the duration of each of which is zero, should have, together, a duration that is more than zero. The matter might be put more strongly. We are inclined to say that, if the duration of events were reduced to zero, 'there would be nothing left of them', they would 'just be nothing', and we obviously could not hope to make something out of an accumulation of nothings.⁷ We may regard this as one side of the Augustinian problem. A second slightly different side consists in the fact that the stages of any happening that takes time are never there *together*. Now it seems absurd to say of a number of things which are never together, but always apart, that they can ever *amount* to anything, or form a *whole* of any kind: it would be as if one were to try to build a house with bricks that repelled each other, so that each one moved away when the next one was brought up to it. At such a rate, it would seem, one could build no house and no interval of time.⁸ But Augustine's problem has a third side which seems to have worried him particularly: that if we measure an interval of time, we must be measuring something of which a vanishing section only has reality: all the other sections of it, which give it breadth and bulk, are either *not yet there* or *not there any longer*. Now it is hard to grasp how we can measure something which is no longer there, which is 'past and gone', of which we are tempted to say that it is 'simply nothing'. And it is also hard to grasp how we can measure something which is not yet there, which is merely expected, which we are likewise tempted to describe as 'nothing'. It would be like trying to measure a building of which all but the tiniest fragment had been blasted by a bomb, or existed merely in a

⁶ Augustine: 'The present hath no space. Where then is the time which we may call long?' See above.

⁷ Augustine: 'If time present . . . only cometh into existence because it passeth into time past, how can we say that either this is, whose cause of being is that it shall not be.' (XI, 17.)

⁸ Augustine: 'Therefore neither is the year now current present; and if not present as a *whole* (our italics) then is not the year present.' See above.

builder's blue-print. In such a situation we should have no building to measure, and it seems we should be in the same position with regard to lengths of time.⁹

We shall now briefly point to some ways—there are an indefinite number of such ways—in which we might avoid these Augustinian perplexities. We might, first of all, evade the whole argument by which we have been bludgeoned into saying that there are some events that take no time, and that only these are ever truly present. We might refuse to say, of certain happenings which are very short, that any of their parts lie in the past or future; we do not normally, in fact, make use of the past and future tenses in speaking of the parts of very short events contemporary with our utterance. Alternatively we might say that some sufficiently short events can be 'present as wholes', though most of their parts are past or future; this too agrees with ordinary usage, for we say that many fairly long events *are* happening, though we should talk in the past or future tense of some of their remoter parts. Or again we might deny—as Whitehead in his doctrine of epochal durations has denied—that certain very brief events come into being *part by part*.¹⁰ There is, in fact, no plain empirical meaning to be given to the supposition that all events come into being part by part, since there must necessarily be a limit to the division of events by human judgements or instruments. Or again we might choose to follow certain other trends of language, and to say, of certain very brief events, that they 'took no time at all', thereby excluding from the start the whole issue of divisibility into successive parts.¹¹ It does not, in fact, matter, in all this choice of diction, *what* we say, provided only that we truly please ourselves: the facts are there, we can see and show

⁹ Augustine: 'In what space then do we measure time passing? In the future, whence it passeth through? But what is not yet we measure not. Or in the present by which it passes? But no space we do not measure. Or in the past to which it passes? But neither do we measure that, which now is not.' (XI, 27.)

¹⁰ 'Accordingly we must not proceed to conceive time as another form of extensiveness. Time is sheer succession of epochal durations. . . . The epochal duration is not realised *via* its successive divisible parts, but is given *with* its parts.' *Science and the Modern World*, p. 158.

¹¹ How brief the happenings must be, of which we say any of these things, is of course a matter for arbitrary decision.

them, and it is for us to talk of them in ways which will neither perplex nor embarrass us. It is desirable, in our choice of words, that we should be consistent, but it is not desirable that we should make a fetish of consistency. Consistency in language is most necessary if it means that we shall not, in a given context, fall victims to linguistic conflicts, that we shall not try to say something, while striving at the same time to unsay it.¹² Consistency is also very desirable if it means that we shall be guided by the analogies of things in what we say in *different* contexts; in the absence of *some* degree of such consistency, all language would be arbitrary and communication impossible. But consistency is wholly undesirable if it becomes a bogey, if it makes us say something in one context merely because we have said it in some other, more or less analogous context, and if it then leads us on to say further things which bewilder and confuse us. For the analogies of things are varied and conflicting, and it is impossible, without disrupting human language, to do justice to them all.

So far we have pursued a line which shakes the dialectic on which the Augustinian problem is founded. By so doing we avoid giving a sense to the phrase 'events which take no time', and are not obliged to say that these alone are truly present. Suppose however we are moved by this dialectic, or by some consideration of scientific convenience, to admit this talk of 'momentary presents', how then shall we proceed to deal with the various aspects of the Augustinian problem? As regards the first aspect, the building of a whole which has size out of parts which have *no* size, we may simply point out that it mixes up the familiar sense in which a pile of money is built up out of coins, with the new sense in which a happening which takes time may be built up out of happenings which take no time. Because one couldn't amass a fortune out of a zero contributions, one tends to think one couldn't make a measurable duration out of parts with no duration. But the situations are quite different; no one has witnessed

¹² Unless, indeed, a linguistic conflict is deliberately used to express some personal reaction to reality, as has been done by some philosophers.

a lapse of time being built up out of instants, as he can witness a pile of money being built up out of coins, nor can the former be imagined as the latter is imagined.¹³ Hence if we wish to speak of 'happenings which take no time', we are quite free to fix what may be said of them, and this means that we may simply rule that events which take time *are* made up events which take no time. And once misleading pictures are avoided, we shall find no problem in this. We may in the same way dispose of the difficulties which spring from the tendency to say that an event which took no time would 'just be nothing'. Either we must restrain this inclination—to which we are not in duty bound to yield—or be prepared to say that certain parts of real temporal wholes are simply nothing, and that mere nothing can at times have definite properties. This way of talking would no doubt do violence to our habits, and abound in dangerous suggestions, but we should not, with a little practice, find it difficult.

The second aspect of the Augustinian problem involves a similar confusion. Because it would be absurd to say of certain wholes—houses, mountains or libraries, for instance—that they existed and were measurable, although their parts were never together, we think it would be absurd to say the same thing of happenings. But the fact that we shouldn't say that *some* of the things we call parts could constitute the things we call their wholes, unless they were present together, does not oblige us to say this in the case of *other* things we also call parts and wholes. For the sense in which the parts were parts, and the wholes wholes, and the former made up the latter, might be ruled to be different in the two sets of cases: we might say we were dealing with two totally different *sorts* of parts and wholes. And we do in fact rule so; for we regard it as nonsense to say of an event that takes time, that its parts are present together. And we recognise the difference between the two sets of cases by talking of *coexistent* parts in the one set of cases, and of *successive* parts in the

¹³ Though a sense might be invented in which we could be said to witness or imagine the former.

other: the successive parts of a whole are, in fact, just those parts of it that *don't* need to be together. But if we feel ourselves unconquerably opposed to calling something a whole whose parts are not together, we may simply rule that some things may have magnitude although they are not wholes. And other similar expedients will meet other possible difficulties.

As regards the third difficulty of Augustine, how we manage to measure something which is in part past, we may again suggest a number of alternatives. We might, in the first place, reject the analogy between the measurement of a coexistent whole like a house, which isn't there to be measured if any parts of it lie in the past, and the measurement of a successive whole like a happening, which *must* have parts in the past. Or we might follow certain other trends of language, and say that we have succession *in the present*, and that certain happenings which are not too long are able to be present as wholes and so to be measured directly. Other longer happenings might then be measured by means of the briefer and directly measurable happenings which entered into their remembered history. Or if it is the 'nothingness of the past' that troubles us, we must remember that we are not compelled to say that the past is nothing: we may, if we like, credit it with existence or subsistence or any other suitable status. For we are only worried by the 'nothingness of the past' because we think it will stop us from finding out any facts about the past, just as the nothingness of a bachelor's children stops us from asking for their ages or appearance. But there are so many clear and agreed ways of establishing what has happened in the immediate or remoter past, that it would be nonsense to put past events in the position of a bachelor's children. So that if we wish to say that they exist or subsist, there is no good reason why we should not do so. But if the 'existence' of the past is going to suggest to us that we could by some device revive or revisit the past, as we could revive a drowned man or revisit Palermo, then it is perhaps better to go on saying that the past is nothing,

allowing meanwhile that there may be measurable wholes which have certain parts that are nothing.

The puzzles of Augustine lead on very naturally to the problems of Zeno, or rather to a certain very general difficulty which seems to be involved in every one of Zeno's paradoxes. This is our difficulty in seeing how anything can happen, if *before* it happens something else must happen, and *before* that happens something else must happen, and so on indefinitely. If we make time continuous and infinitely divisible, we also feel obliged to say that before any happening is completed, an infinity of prior happenings must have been completed, and this seems to mean that *no* happening can ever be completed. We seem to be in the plight of a runner in a torch-race, who wants to hand on his torch to another runner A, but is told by A that he will only take it from B, who tells him he will only take it from C, who tells him he will only take it from D, and so on indefinitely. Or in the plight of a man who wants to interview a Cabinet Minister, and who is informed by the Minister that he must first discuss his business with the Under-Secretary, who informs him he must first discuss it with the Chief Clerk, etc., etc. Our runner obviously will never get rid of his torch, and our harassed petitioner will obviously never see his Minister, and it looks as if all happenings involve the same hopeless difficulty. The difficulty we are presenting is, of course, not identical with any one of Zeno's historical puzzles: in all of these the difficulties of duration are complicated by the introduction of change and motion. But it is plain that all these puzzles could be so restated as to deal with happenings without regard to whether those happenings were changes or persistent states, and without regard to whether they involved motion or not. A plum continuing to hang on a tree for a certain period affords, less dramatically, the same species of philosophical perplexity as an arrow in its flight. Moreover, when we strip Zeno's problem of its spatial and other wrappings, its significance becomes clearer. For it is not, essentially, a problem of space or quantity, but solely one of time: it is only because all

motion is *successive*, because an infinity of positions must be passed *before* any subsequent position, that the possibility of such motion seems so utterly ruled out. If the infinite stages of a motion could be there all at once, as the parts of a piece of space are, we should feel no problem in their infinite number. It is therefore foolish to imagine that we can meet Zeno's puzzles by the modern theory of the continuum or by the facts of infinite convergent numerical series.¹⁴ And the problem assumes its most vexing form if we allow that ordinary happenings have ultimate parts that take no time. For of such parts it seems most natural to say that none can be next to any other,¹⁵ and once this is said it is hard to understand how any ultimate part can ever pass away or be replaced by any other. For before such a part can be replaced by any other similar part, it must first have been replaced by an infinity of other similar parts. Our admission seems to leave us with a world immobilised and paralysed, in which every object and process, like the arrow of Zeno, stands still in the instant, for the simple reason that it has no way of passing on to other instants.

As before, we may deal with our difficulties in several different ways. We might, in the first place, deny that very short happenings are divisible as fairly long ones are divisible: the divisibility of *all* happenings is in any case without a definite meaning. This is the line followed by Professor Whitehead, who makes time flow in indivisible drops, and says that it is 'sheer succession of epochal durations'.¹⁶ But, far less drastically, we might give to all this talk of instants and of infinite divisibility a sense consistent with the obvious facts of our experience, that things happen and that phases are outlived, that the world is not immobilised, and that we seldom have to cast about for ways of passing on to novel stages. For the infinite happenings that must first occur before a given thing can happen, are not like ordinary

¹⁴ This point is clearly brought out by Whitehead. See *Process and Reality*, p. 95.

¹⁵ Unless we choose to say that there is a finite number of ultimate parts in any happening, or other queerer things.

¹⁶ *Science and the Modern World*, quoted above.

happenings we can see and show, of which it would be absurd to say that an infinite number ever were completed. They are happenings of a new sort to which a meaning must be arbitrarily given. And since *we* have to give a meaning to these happenings, it is for us to see that they mean nothing which conflicts with our established ways of saying things. And once we strip them of pictorial vividness, we also strip them of their puzzling character. Our problem also vanishes when we note that even to be 'desperately immobilised', to 'cast about in vain for means to pass to other stages', would both, if they were anything, be states that lasted and took time. Our problem therefore takes for granted the very thing it finds so difficult.

We turn, in conclusion, from these Augustinian and Zenonian difficulties, to a different set of temporal puzzles, quite unconnected with our tendency to use the present tense in more exact and narrow ways. We shall consider briefly the very general wonderment which professes to find something 'unintelligible' or 'contradictory' in time and change. 'How is it possible', we sometimes like to ask, 'for all the solid objects and people around us to melt away into the past, and for a new order of objects and persons to emerge mysteriously from the future?' This kind of wonderment is most strongly stirred by processes of *rapid* change: we wonder at things which have no constant quality for any length of time however short, at things which only reach a state to leave it, and so forth. A similar perplexity besets us in regard to 'truths' or 'facts': we wonder how what *is* the case can ever cease to be the case, or how what was false *then* can come to be true *now*, and so on. This week the peaches in our garden are not ripe; next week we find them ripe; the following week they are no longer ripe, but rotten: in certain frames of mind we find this difficult. Our difficulty with regard to change may also be expressed in terms of 'happenings' and their 'properties' of 'pastness', 'presentness' and 'futurity', the form in which this problem was propounded by McTaggart. We wonder how it comes about that happenings which are at first remotely

future, should steadily become more nearly future, how in the end they manage to be present, and how from being present they become past, and how they go on, ever afterwards, becoming more and more remotely past. McTaggart has shown plainly that we cannot solve this problem (if it is a problem) by bringing in the 'different times' at which events are present, past and future, since these themselves (whatever we may mean by them) have also to be present, past and future, and so involve the very difficulty they are called in to remove.

Now it is hard to see, if we remain in any ordinary, unreflective state of mind, what is the problem that is being raised by those who say they can't see how what is the case at one time, is not the case at other times, or that they can't see how a happening that is future can ever come to be a happening that is past. As we observed at the beginning of this paper, it should be possible to remove such difficulties by pointing to some ordinary happening around us, a man diving, for instance, and saying, as it happened, 'Now he's not yet diving', 'Now he's diving', 'Now he is no longer diving', or other similar phrases. And if a man were really puzzled by our usage in such situations, it would not take him very long to master it. We do not ordinarily have difficulty in knowing what to say of happenings as they pass, nor any tendency both to say and not to say the same thing in a given context, a kind of inconsistency that is seldom desirable. Occasionally, where change is rapid, we may find ourselves at a loss to say whether something is or is not yellow, or whether it is or was yellow: we may also have a tendency to say that it is both or neither. But all this only means we lack a settled and satisfactory way of talking about very swiftly changing things. But in the case of changes which are less rapid, we find ourselves quite free from conflict or confusion. *Before* an event occurs we say, if we have evidence, that it is not yet happening, that it hasn't yet happened, but that it will happen, while if it *is* happening we say that it is now happening, that it hasn't ceased happening and that it isn't about to happen, and *after* it has happened we say that it has happened, that it

is no longer happening and that it is not going to happen. Stated in words these semantic rules might seem circular, but taught in connection with a concrete situation they are wholly clear. And our conventions with regard to tenses are so well worked out that we have practically the materials in them for a formal calculus.¹⁷ Where all is so desirably definite, what room is there for puzzles or perplexities?

To give an answer to this question, we must point to a certain aspiration which all our language to some extent fulfils, and which we are at times inclined to follow to unreasonable lengths. We desire to have in our language only those kinds of statement that are *not* dependent, as regards their truth or falsity, on any circumstance in which the statement happens to be made. We do not wish a statement which we call 'correct' and 'justified by fact' when made by one person, to be incorrect when made by another person, and to have to be superseded by some other statement. In the same way we do not wish a statement which we call 'correct' when made in one place, to be incorrect when made in another place, and to have to be superseded by some other statement. And there are occasions when we feel the same sort of thing about the *time* at which a statement is made: if we are right in saying something at a certain time, then, we sometimes feel, we must be right in saying the same thing at all other times. This means that we object, in certain frames of mind, even to the easy, systematic changes of tense which statements have to undergo when they are transmitted from period to period. We might express our general aspiration by saying that we wish our statements to be independent of 'extraneous circumstances' in regard to their truth or falsity: 'the facts' must settle whether what we say is true, and nothing else must come into consideration. But such a way of talking would be

¹⁷ The calculus of tenses should have been included in the modern development of modal logics. It includes such obvious propositions as that

x present $\equiv (x$ present) present;

x future $\equiv (x$ future) present $\equiv (x$ present) future;

also such comparatively recondite propositions as that

(x). (x past) future; i.e., all events, past, present and future, *will* be past.

gravely question-begging, for it depends on the sort of language we are speaking whether a circumstance is or is not extraneous. If we spoke a language in which the statements permitted in one place differed systematically from the statements permitted in another place, then it wouldn't, in that language, be an extraneous circumstance, as regards the truth or falsity of a statement, whether that statement was made here or there. And those who used the language would protest quite legitimately that 'something was left out' by other languages which ignored all local circumstances of utterance. But the point is that we do *in part* say things which may be passed from man to man, or place to place, or time to time, without a change in their truth-value, and we look at things from *this* angle when we say that time, place and speaker are extraneous circumstances, and require our statements to ignore them.

Now the urge behind these austerities seems simply to be the urge towards more adequate communication, which is the fundamental impulse underlying language. We are prepared to sacrifice local and personal colour, or period flavour, in order that our statements may be handed on unaltered to other persons who are differently situated, or to ourselves in other situations. But it is not *this* sacrifice which gives rise to our perplexities: if we always spoke rigorously in the third person of everyone, ourselves included, if we avoided the adverbs 'here' and 'there', if we purged our language of tenses, and talked exclusively in terms of dates and tenseless participles, we should never be involved in difficulties. And for the purposes of science it is perhaps desirable that we should always talk in this manner. But our difficulty arises because we try to talk in this way but are also uneasy in doing so; we feel that something worth-while has been omitted, and try to combine our old way of talking with our new one. Thus McTaggart first offers us an order of events in which there are no differences of past, present and future, but only differences of earlier and later, in which every happening always stays the sort of happening it is, and always occupies

the same position in the time-series: he then slides back into another way of talking in which events are present, past and future, and always *change* in these modalities. And his attempt to combine these ways of talking results in the unanswerable question: how can a single happening have the incompatible properties of being past and present and future? Whereas if we talk in the ordinary way we never have to say these things at once, and if we talk in an artificial, tenseless manner the question can't arise, since the modalities in question can't be mentioned. It is as if a man tried to retain the use of personal pronouns, such as 'I', 'you', 'he', etc., in a language in which everything that could truly be said by one man could be truly said by every other man, and were then led to ask: 'How can one and the same person be I and you and he?' And once we see the source of such perplexities, we should be easily rid of them.

SOME THOUGHTS ON PLANNING.

By P. H. PARTRIDGE.

EVER since this war began there has been considerable talk of planning the peace, of post-war reconstruction, of the deliberate creation, when once we have disposed of the apostles of violence, of a secure, free and genuinely rational society. No doubt, this sort of talk would be a characteristic feature of any modern war. A purely defensive doctrine, a concentration upon what we stand to lose by defeat rather than an insistence upon something we are said to stand to gain, would be insufficient to maintain the necessary dynamic of war. It is realised that so many members of any modern society are opposed to some fundamental character of its political structure that it would not be safe, or at any rate sufficient, wholly to rely upon the negative cry of defence. It is useful also to suggest, whether truthfully or otherwise, that the community is fighting for the opportunity to inaugurate a higher, freer or more equal form of society than the one which existed before the onset of war. But while this is important, it is perhaps not the most important factor underlying the preaching of reconstruction. It is possible that this sort of propaganda expresses a general sense of guilt; no matter how strenuous an attempt is made to disguise or repress the thought, there is present within a community in a time of war some recognition of the way in which the interests and modes of life which prevailed in the immediate past have helped to bring about the present social collapse. Those democratic publicists who talk most about post-war reconstruction are aware in some way that their own record is not clean; and they hope, perhaps, by this act of repentance to

propitiate whatever powers determine the destiny of nations. And it is for this reason too, perhaps, that when the fear and agony of war are over, and when there appears in the victorious communities the self-satisfaction and self-complacency and self-righteousness which victory induces, the plans for peace are apt to be forgotten. The guilt and the fear which produced them are no longer present.

It is not, therefore, to be wondered at that there should now be so many indefatigably planning the peace and the next stage of social evolution. It is not surprising that plans and dreams for after the war should constitute so prominent a feature of popular thinking. It is more surprising that this should be so much countenanced as it is by men who profess to be responsible students of politics. The policies upon which the democratic powers have relied since the end of the last war—such as the creation of the League of Nations—have failed so ignominiously as to suggest that they were policies formulated by men utterly ignorant of the nature and mode of behaviour of modern states. It is true that those who accepted the Marxist doctrine of the nature of the state and of the forces determining the relations between states were able from the beginning to forecast with considerable accuracy the career of the League of Nations and the fate of many of the other policies that have dominated European politics in the last twenty-five years. Indeed, the cynicism or the deliberate blindness of those who have held power in democratic countries in the last few years is one of the plainest features of recent history. But in spite of certain successes the Marxist position has not been successful on the whole in anticipating and dealing with the course of events in the present century. It appears now that Marxism greatly overestimates the working-class as an independent political force, as a class capable of contending for the control of society. It has vastly underestimated the power and vitality of nationalism as a movement counteracting the operation of the class struggle; it can account for fascism only by the most implausible view that fascism represents the turning of the

screw by monopoly capitalism, and finds itself much embarrassed in consequence to recognise the anticapitalistic and antibourgeois features of fascism. The rapidly increasing power of the state at the expense both of working-class organisations and of the property rights of the individual capitalist is a phenomenon which to say the least presents acute difficulty for the Marxist doctrine of the state. At the best, it will probably turn out that the Marxist theory of the state and of the class-struggle is a serious oversimplification of the facts; although it might even be argued that the conception of the class-struggle, like the solidarist views elaborated by Nineteenth Century bourgeois thinkers, is not to be considered so much a contribution to political science as a revolutionary myth or Utopia in Mannheim's sense, produced by the selection and exaggeration at the expense of all others of one particular line of cleavage in the structure of capitalist society.

For these reasons among others, those whose political understanding has been formed under the influence of Marxism have not proved to be at all effective in the face of the events of the last ten years. On the other hand, an inspection of the projects and predictions of more orthodox and influential Anglo-American statesmen and publicists which E. H. Carr collects in his book *The Twenty Years' Crisis* shows plainly enough that they were even less aware of the character of the forces determining the internal and external affairs of states in the period between the two wars. In that book, indeed, Carr attempts with considerable success to show that for the past century and a half Anglo-American thought has been dominated by a philosophy of history (that is to say, a systematic view of the study and practice of politics and of the character of political reality), which, while it has been comforting to the pretensions of the ruling group in England who elaborated it and popularised it, incapacitates those who hold it from grasping the dominant historical forces controlling the development of modern society. In any case, it would now be fairly widely admitted that the contemporary

crisis in political thought arises from the collapse of those theories of history which became supreme in the latter part of the Nineteenth Century. It is no longer possible to assume, as it was quite commonly assumed in that period, that with the establishment of the institutions of parliamentary democracy the final, permanent form of political organisation had after much blind experimentation been arrived at; that within the newly established democratic system, conflicting interests within the state and between different states could be relied upon always to come to a peaceful solution, partly as a result of the natural adjustments of the market, partly as a result of the intervention of legislation. Of course, as Laski, Carr and many other writers have pointed out, the liberal-democratic conception of a final harmony of interests, the doctrine that the political and economic institutions of democratic societies are of such a kind that political order arises from a voluntary adjustment or compromise of demands, and that the exercise of "naked force" progressively disappears, is one that escaped exposure in the Victorian age only because of the presence of very special and impermanent conditions. It is hardly possible to doubt that the liberal view took root only in those societies which enjoyed a specially favourable position in world economy, where there was a rapidly rising standard of living and where the pressure of competition was not particularly severe. The emphasis on "will" or "consent" as opposed to "force" as the principle of social cohesion, the subordination of policy to moral considerations or requirements and a preference for rational calculation and negotiation among all possible forms of political activity, all of which have been characteristic of political thought in England in the past hundred years, are what we should expect to find in the thought of a social group which occupies a position of superiority and security and which has come habitually to expect that its demands will be satisfied. Dominant and privileged groups or nations are not usually in a position to see that the morality which they advocate is one which is congenial to their own interests and

ways of life and not so congenial to subordinate groups; that an emphasis on voluntary or negotiated solutions to social conflicts will appear differently to those who do not possess the preponderance of power. It may be that the decline of a ruling group or power begins from the moment when it comes to believe the ideology or morality it has itself developed and promulgated. It seems to be just possible that the English writers and statesmen whom Carr discusses in his book really did believe that the international order was held together by the common acceptance of the morality which they themselves professed, and that all nations in the system, like all groups in the state, either consented to the existing structure or, by a minor adjustment of interests, could be brought to accept it.

This moral approach to politics, this conception of a society bound together by the supremacy over all interests and groups of a common morality, has become so deeply imbedded in English political thought that it has been singularly unfitted to understand or to deal effectively with the sort of social force represented by or released by fascism. Fascism appears as a mysterious break in the line of political development, as a spontaneous outburst of "immoralism" and "irrationalism" which, as often happens when confident expectations are falsified by history, is explained by personal "wickedness" or "betrayal". This sort of explanation, of course, means the abandonment of any claim that a science of politics is possible, though even the formulation and adoption of a certain policy implies that there is regularity in the succession of historical events and that there can be social prediction. The point that has to be most insisted upon is that the outbreak of war, the capture of initiative by fascism in the past few years, the failure of all democratic policies and the consequent falsification of their predictions of what would ensue if certain things were done, all show that democratic policies have been founded on a false estimate of the nature of the forces operative in contemporary societies.

Now, if this is the case, it is not very useful to suggest that the position is to be remedied by the advancing of new and different policies. Since it is quite obvious that the framers of international policies have not really understood what are the factors or conditions that have to be taken into account in the formulation of their policies, what are the forces controlling the behaviour of states, even the political theorist who most desires that his investigations should be of practical use must realise that political theory is not likely to contribute much of value to the present situation unless it refrains from the advocacy of solutions before it is even in a position to determine with any precision what the problems are. No doubt, in a period like the present, where conditions of social anarchy prevail, it is peculiarly difficult for the political theorist to dissociate himself from the war of slogans, from the conflict of "philosophies", programmes or social ideals which is said to constitute the real nature of the clash of arms. In fact, the theorist and the intellectual are especially prone to imagine that by the elaboration of social programmes and philosophies they give direction and character to the "material" forces—economic, military, and the like—operating in society. "The real history of a period", as Muirhead puts it, "is the history of the ideas which dominated it, and these ideas find their purest, if not always their clearest, expression in the works of the philosophers." So far as political ideas are concerned, the work of the Marxists and of those German sociologists who have followed up the suggestions of Marx has tended to show that the position is quite different. A historical study of the ideas which have been most prominent in European political thought in the past two centuries seems to show that the meaning of such ideas as "liberty" and "democracy" is determined by the character of the social activities and organisations in connection with which they are advanced and changes as these activities and forms of organisation change; and that it is an illusion of the intellectual to suppose that activities and forms of

organisation are called into being or "controlled" by the ideals and the programmes of the publicist or the philosopher.

It would have to be admitted, however, that this particular question is a difficult one, and that no satisfactory account of the relation between social practices and social philosophies has yet been developed. But even its presence as an unresolved problem should be sufficient to deter the political theorist from assuming that by the promulgation of some policy he can contribute to the realisation of some social goal. No matter what he himself might mean and intend, he is never in a position fully to anticipate how interests in society of which he might not be aware and to which he would possibly be opposed will take over any formula or conception which he develops and give it a social content quite opposed to the one he intended it to have. For instance, those intellectuals who, in the post-war period, occupied themselves with the institutions and the ideals of the League of Nations quite obviously did not suspect how conveniently their formulas and institutions could be used by interests wholly concerned with maintaining their predominant and favoured position in the international set-up. In the history of communism and of Russia since 1917 one could find other examples of the way in which disinterested intellectuals and their "ideas" are used by more powerful forces for quite different purposes, and if political theorists continue to thrust themselves forward in any social crisis with programmes and ideals without stopping to consider what are the dominant interests in the society and how their ideals, if they become popular at all, are likely to be interpreted and filled out by those interests, it must be because the tendency to assume the "omnipotence of thought" is still quite influential amongst social thinkers. In *The Twenty Years' Crisis* Carr remarks that intellectuals, as a rule, are always disposed to resist the contention that their thinking is conditioned, that their programmes are not the productions of perfectly free and disinterested agents. An equally remarkable feature which makes much discussion of social philosophies unimportant is

a failure to take account of the way in which social ideals and conceptions are used by different movements and interests to indicate quite different states of affairs or simply as weapons in political manœuvring. It is because political theorists are so often indifferent to the way in which conceptions actually operate as social instruments that they find themselves utilised and imposed upon by interests to which they might be quite opposed.

Thus, before the political theorist can with any confidence offer far-reaching projects of reform and reconstruction, there are some important difficulties to be met. It is not only a matter of understanding what, at any given time or place, are the forces and factors that have to be taken account of, but also, as the last point will have shown, there is the more fundamental question of the character or function of social policy as such, of the way in which explicit policies and projects arise and of the way in which they operate as social forces. One might expect, indeed, that the very outburst of social violence in the present period and the obvious impotence of the most widely supported policies of the last couple of generations to bring about the result they were intended to achieve, would bring into special prominence the question of the conditions under which it is possible to plan and to contrive some definite result or to procure by negotiation and the manipulation of the factors concerned an intended solution of a political problem. It might be granted that, while there is in any society a group which is sufficiently powerful to maintain a relatively stable structure and constantly to effect adjustments of conflicting interests in a way that maintains its own advantage and dominance, it would appear plausible to assume that it is by deliberate ordering and arrangement of interests and demands that the structure of a society is largely determined. But at the present time, both within many European states and in the international field, there is no group which is sufficiently powerful to legislate for the rest, to create an order which, while safeguarding its own predominance, satisfies their established

expectations, or with sufficient control over the situation to carry through to a conclusion plans which it had originated. It would hardly be expected, therefore, that in contemporary theory the possibilities of deliberate contrivance would be taken very seriously, yet, in spite of this, there are still many theorists who assume without question that there are no political problems which cannot be dealt with by planning, and who save their hypothesis in the face of the recent history of Europe by attributing to certain individuals and groups a preference for or cult of "irrationality" and violence. The truth seems to be that the revolutionary movements of Europe in the last few decades have not substantially affected the assumptions of that theory of politics which originated in England in the Nineteenth Century and which still comprises the theoretical groundwork of most English writers. Ever since the appearance of Utilitarianism political theory has been coloured by the assumption that the field of politics consists entirely of the operation and interaction of conscious policies; that the formulation of demands or the selection of ends, and the deliberate choice and utilisation of means for the achievement of those ends, constitutes the typical form of political behaviour. Even on such a view of political reality, there are some questions which could occupy a political theorist as distinct from a person predominantly concerned with the determination of policy. For instance, one might have a theory of how ends come to be chosen and of how different demands interact. But it has often been assumed as well that ends are simply given and that there is no accounting for the choice of ends, or, more often, that all men, or all members of a community, choose the same ends, desire the same things—Bentham and his immediate followers assume, for example, that the end men pursue is determined by their psychological nature. And even where the crudities of psychological hedonism have been left behind, we still find it assumed that ends, though they may be admitted to conflict, are freely chosen, and determine the political behaviour of those who choose them. In this way, then, political theory

and political practice—policy making—become amalgamated; the possibility of a science or theory of politics, quite independent of policy, is denied, and political theory comes to be understood either as the advocacy of certain ends as desirable or as the discovery of means to ends which are taken for granted.

But, as we have argued, it is not plausible now, whatever may have been the case in periods of greater political stability, to suppose that history can be accounted for as the product of a deliberate pursuit of ends. It has become quite apparent that historical situations eventuate often in spite of what men desire and pursue. It has to be recognised, therefore, that the utilitarian view of the logic, or of the categories, of political thought is compelled to ignore or to distort certain aspects of political reality. In particular, utilitarianism or any other view which regards politics as the resultant of desires or demands, has to ignore or to depreciate all those factors which operate to limit the efficacy of conscious policy. Now, it is often argued, as it is by Carr in *The Twenty Years' Crisis*, that those who contend that men are moved by social forces of which they may not be aware, which they cannot control but which control them, and that their wishes may be quite powerless to affect the tendency of events, are thereby committed to a position of passivity and fatalism as regards political activity. Thus, according to Carr, realism (as he calls the view which opposes the contention that policy is the dominant political factor) "tends to emphasise the irresistible strength of existing forces and the inevitable character of existing tendencies and to insist that the highest wisdom consists in accepting and adapting oneself to these forces and these tendencies". But this is a position that the "realist" is not obliged to defend. No doubt, he would want to maintain, as against utilitarianism, that ends and policies do not spontaneously arise, but that what policies are advocated at any time has to be accounted for by reference to social factors and conditions which are not themselves human demands. And again, he will want to maintain that whether a demanded state

of affairs is realised will depend, not wholly upon its being demanded but equally upon the character of the social environment in which the demand appears—upon the character of the institutions, interests and activities with which the policy interacts. For instance, it could be argued that no matter how widely and strongly the disappearance of the sovereign national state might be demanded it does not follow that anyone has sufficient control over the political institutions which at present prevail to develop international ruling institutions which would work harmoniously with other institutions and social practices that have become established. Moreover, the question whether the realist should in consistency refrain from the advocacy of policies and ends is not a real one; for the realist would be ready to admit that however his demands might be determined in their appearance by other factors, and whatever might be their chance of success, nevertheless he finds himself expressing and pressing demands all the time; it simply is not in his power to choose to demand or to refrain from demanding. The fact that men are characterised by wants is something that he accepts as a fact of politics whatever might be the political character or importance of their wants. But, of course, the realist is prepared to admit that not all policies are incapable of achieving their intention or involve some miscalculation of the relevant conditions; within any given structure of political forces, there will always be some results that can be brought about by deliberate struggle or pursuit.

What, then, the realist would want to maintain is that social policies appear and are operative as factors in the whole social complex: they act and are acted upon by factors that are not purposes and demands. What he wants to deny is that policy is a *controlling* agency in social development; that it is possible to formulate any social policy by which social events are simply guided towards some pre-determined result. It would be contended that utilitarians, who conceive of political behaviour as the deliberate utilisation of social means for the realisation of a selected end, consider policy in the way which

has just been described as a matter of controlling some area or series of events, and the more grandiose conceptions of a planned, rational society which have recently been produced in quantity by social theorists are of the same character. Now, in criticising this view of the nature and function of policy we are not merely concerned with the obvious point that any policy has to take account of the social conditions or factors which are relevant to the end which it proposes to achieve, though this is an issue that may sometimes arise. Thus, when Marx attacks the Utopian Socialists, it is because they are said to assume that desires or ends may be attained irrespective of the interests and forces dominant in the society; and one might criticise the advocates of the League of Nations on the ground that states, by their nature, could not behave as the policies in question required them to behave. Possibly there are political thinkers who do suppose that in society there are no limitations upon human capacity and that any policy can be made effective, provided only that it is not too strongly opposed by other policies. But leaving all such considerations aside, we should argue that policies are not controlling agencies in the sense that they appear ready made and that their execution is a matter simply of putting into operation a series of pre-determined steps. Our political activity cannot accurately be represented as a deliberate approach towards a foreseen end, for events manipulate us as much as we manipulate them. Our policies and the ends we profess change from moment to moment as we are affected by the succession of events; it is not only that, taking account of the characters of certain social conditions, we formulate a policy, but it is equally the case that in attempting to put some policy into operation, we find out for the first time—and could not have found out in any other way—certain features and characteristics of our social environment, and the ends and policies we entertain are modified in consequence. In this way, then, policies and ends do not appear outside of society, or, to put the same point differently, the formulation of policy is not something that precedes and “determines”

social action, but the formation and modification of policies is something that goes on continuously as part of the social flux or process. In this sense, at least, the career of any political movement or party is "opportunistic"; it finds itself constantly dominated and coerced by events, and compelled to take up positions far removed from the position it had intended to take up a little before. A study of the history of the organised parties of the working-class over the past few years would admirably illustrate the limits of policy; but even those political movements which have appeared to hold the initiative in their own countries, such as Nazism in Germany, are as much driven as they lead.

The intellectual tends to be ineffectual in politics precisely because he assumes that a policy can be elaborated independently of social activity and "handed down" to those who are supposed to put it into operation. The characteristic fault of political theorists is doctrinairism: the assumption that history can be made to proceed according to a formula. But it is obvious that, even where some policy is instituted in respect of some area of social life, it is impossible to predict fully, or even adequately, how institutions, social habits and interests, which are affected by changes produced by the operation of the policy, will react, and it is, therefore, normally the case that any policy, right at the beginning, is confronted by a situation which it did not anticipate, so that the policy is being put into operation in a field different from that which was originally reckoned on. It may, of course, be said that there is nothing in this to imply that it is impossible to plan or to control some particular or limited field of social life, such as the economic institutions of a community (though even here it would still be open to us to argue that an economy could be said to be "controlled" only in the conventional sense in which the market, under a *laissez-faire* economy, was said to be "free"), but, in any case, it is a different sort of problem that arises in the conception of a whole society dominated by or ordered according to a plan.

Now, one feature of the conception of typical social behaviour elaborated by utilitarian thinkers is, of course, its individualism: its assumption that each individual may be conceived as acting as an independent unit. But if, in considering this question of the function of policy, we make it a matter not of the independent individual but of the political leader or of the member of a political movement, it is equally clear that it is not by a prior consciousness of the forces operating, and a deliberate manipulation of them as means to ends, that the politician acts. It is as often the case that the politician does not know what he wants or what is "wanted" by the movement of which he is a representative man. It is natural enough to suppose, at a first glance, that enunciated or thought-out policies form, characterise and direct the movement, rather than that movements form the policy, or discover the policies and the plan of campaign which they require. The politician, when he advocates a policy, may not know to what forces or tendencies in society he is appealing, but he finds by the way in which his position is caught up and develops whether he is "in tune with" some profound social tendency and what that tendency is, or where in society it is located. And at certain times a man may feel himself to be out of touch with the current of which he normally feels himself to be a part and may attempt to reestablish contact by a restatement of his position. Bismarck is sometimes quoted as having said that "the statesman can do nothing of himself. He can only lie in wait and listen until amid the march of events he can hear the footsteps of God. Then he leaps forward and grasps the hem of his garment. That is all that he can do." If we are allowed to assume that by "God" Bismarck means what we have been calling a social tendency or movement (nationalism or imperialism or whatever it may be), then this may perhaps be taken as a description of the political experience we have been attempting to describe. In general it may be said that in popular political thought the perspicacity or shrewdness of politicians is much over-estimated; it is too easily assumed that the politician is

characterised by a superior capacity to sense the unformulated demands present in a society or the direction of tendencies and to play up to them. This is the conventional account of the demagogue. And also in much current discussion of fuehrerism and propaganda it is taken for granted that the skilled politician or propagandist can simply control, play upon or manipulate the demands or fears which, by a prior analysis, he finds to exist in his society. Now, no doubt, leadership involves some capacity to recognise the character and the "needs" of a movement. But a movement selects its leaders as much as they define or shape the movement. No amount of penetration could enable a man to predict always in advance what sort of position or policy a movement will, at any time or in any contingency, select. It is only by a constant formulation and reformulation of policies and ends and by observing how they are taken up that a man can, in fact, discover what the character of a movement is.

Equally, of course, a man who does not formulate policies himself but who adheres to policies and ends which have been suggested to him by others cannot always know in advance whether any given policy is the one he "needs"; he does not necessarily know what it is he is striving towards, but, as we have maintained, his own view of what he is and of what he stands for varies with the outcome of the different policies he supports. "Reason would have advised you against coming to me and only faith commanded you to do so", Hitler is said to have explained to his own followers, and this is quoted as an illustration of the fascist cult of irrationality. But it is only in the most general way that any adherent to a political movement can calculate or anticipate the outcome of the policy he supports and it is simply a statement of political fact to say that any movement creates itself and its policy, to a considerable extent, as it goes along. Napoleon's description of his own attitude, "*on s'engage et puis on voit*", which Mannheim quotes in a context similar to ours, represents what is the necessary conception of policy at least in any movement which looks towards a rapid and constant transformation

of the social structure. It may be argued, indeed, that the rationalistic or utilitarian conception of the nature of policy, the conception of policy as the calculated or premeditated employment of means to foreseen ends, could only predominate in the thought of a political group which conceived of society as static, as a system in which all processes are predictable and political activity is purely a matter of routine. If this is the case, we should expect that the insistence upon rationality in policy, or the domination of political activities by intelligence, would appear most prominently in the thought of ruling groups whose interest it is to stabilise the prevailing structure of interests and social practices and to exclude the incalculable or whatever could not be fitted into the existing system of governing institutions.

But if this is true it is clear that we cannot accept the view that policy in the sense of conscious contrivance, is to be recognised as the dominant or single controlling factor in political life, nor could we attach any meaning to the now popular conception of a wholly rational society. The view that the social scientist, who is usually one who is devoted to the invention of projects though he is not immersed in any social movement himself—a view not uncommon nowadays among scientists themselves—could perform more skilfully and more disinterestedly the duties of the political leader, utterly misunderstands the nature of the political process and the functions and the powers of the politician. If we take social reality to consist in the interaction of social movements, interests and forms of activity, it is impossible to conceive of any man or any group being able to formulate the policies or define the “needs” of all social interests. But the point that we have been more concerned to bring out is that the utilitarian treatment of policy as an independent controlling factor ignores the existence of the “unconscious” factors of politics. In *Man and Society*, Mannheim argues that “the contemporary social order must collapse if rational social control and the individual’s mastery of his own impulses do not keep pace with technological development”, and it is a

position very frequently taken that the instability of contemporary society arises from our ignorance of the laws which govern our own social behaviour and our consequent inability to exercise control over ourselves. But, apart from all other difficulties, this view seems to take it for granted that we can discover what our social interests are, what are the forces that move us, apart from the way in which we act upon and react to our social environment. It is not that we can, so to speak, legislate for ourselves and prescribe for ourselves legitimate interests or that we can choose for ourselves a scheme of life that we see to harmonise with other social interests and necessities, but we find from the demands and policies that we adopt what our interests are. It goes without saying, of course, that the person who has a variety of demands can balance them and may decide to forgo certain interests for the sake of others. But it is scarcely possible to maintain that we can by conscious consideration or choice determine what demands and interests we shall allow ourselves to pursue—that by a survey of the whole social field we can determine what our rational or real interests are and consciously prescribe them for ourselves. Yet, baseless as this supposition is, it is essential to theories of the rational society of the future which will exclude “politics” in the sense of the exercise of force and in which will appear a deliberately produced equilibrium or harmony of interests.

ART AND MORALITY.

By JOHN ANDERSON.

THE agitation against the recent prohibition of the importation of James Joyce's "Ulysses" into Australia did not last long; indeed, there was scarcely a protest when the Labour Minister for Customs confirmed the verdict of his predecessor. This, it may be said, is not surprising in circumstances of national emergency—people have more urgent matters to attend to, and there will be time enough, when peace is restored, to take up such special questions again. Now, while the question of culture in war-time is one which might profitably be argued much more fully than it has hitherto been, it is not my purpose here to go into that question. But there is, I think, an interesting parallel between literary and political censorship, between attacks on the "obscene" and attacks on the "seditious" or "disloyal".

While the main point of war-censorship is understood to be the prevention of the giving of information to the enemy, there is no doubt that very considerable limitations are placed, by censorship as well as by other means, on the expression of political opinions—in particular, those judged to be unfavourable to the national cause. And one implication of this is that the "national cause" has already been defined beyond dispute. In the same way, in professing to speak "in the name of morality", the supporters of the ban on "Ulysses" assume that their conception of morality is one that all must accept. Their position would obviously be weakened if they admitted that they were speaking only in the name of *a* morality, if they had to uphold what we may call the morality of protection against the morality of freedom. To do so they would have

to rest their arguments (in so far as they do argue and do not merely indulge in noisy denunciation) on some common ground—though this, to the same degree as it facilitated discussion, would make banning more difficult.

Indeed, the more we examine the position of the censors of the morally or politically unorthodox, the weaker do we find it to be. It is obvious that the orthodox view has immense initial advantages; and if those who support it do not want opposing views to be even stated, this would suggest that they doubt its ability to hold its own in free debate—from which it might further be inferred that the view they promulgate differs in important respects from what they really believe. Again (as has been regularly pointed out in discussions of this sort), they imply, in professing to be able to censor, that they themselves will take no harm from examining what they proceed to suppress; in other words, that there is a line of social demarcation between protectors and protected—a line which, since it is drawn by the protectors themselves, will always seem highly arbitrary to those who do not unquestioningly accept protection.

It is here, of course, that we are met with the plea of urgency—irreparable harm may be done while the question is being debated; even if in the end those who proclaimed themselves competent are shown really to be so, it may be too late; the “enemy” may have gained a footing from which he cannot be ousted. Here we have the doctrine of the “fatal attractiveness” of falsehood and evil. Though certain positions can be conclusively demonstrated, immature minds will rush to the contrary positions as soon as they are confronted by the problems. Accordingly, they should be subjected to authority; they should be kept away from these problems as problems, and be presented only with the solutions.

The glaring weakness of this position is that if moral or political “minors” could be kept away from the problems, if these were something merely external to them, there would be no fatal attraction. It is because sexuality is part of the child’s make-up, because the tendency to enterprise is inherent

in the worker's social position, that "indecent" and "subversive" doctrines have so strong an appeal. And in keeping these things down, in seeking to abolish what arises in the nature of the case, the protectors are not merely falsifying the facts but are showing that they themselves have special interests, that their "protection" embodies repression and exploitation. In a liberal regime "subversive" tendencies are intellectually exposed and refuted (while, of course, considerable heterodoxy is tolerated); in an illiberal regime where, from lack of freedom, they are more deeply rooted, they are physically repressed.

One does not, of course, expect to find a purely liberal or democratic regime; but a regime, in so far as it is democratic, supports open discussion and, in so far as it censors, is anti-democratic. Censorship "manufactures the evidence" of social solidarity. It produces *some* of the features of intellectual agreement, but a very different spirit is manifested in the two cases. Those who have come to terms with conflicting views and tendencies are far more vigorous and able upholders of a cause than those who simply follow authority; the latter are divided in mind and prone to panic, the former are adaptable and enterprising. At least, it should be clear that the question is not of the "defence of morality" but of the existence of conflicting moralities, the morality of defence or protection being opposed by the morality of enterprise or initiative, according to which not having tackled problems directly, not having been subjected to "temptation", is a moral defect, a disqualification for responsible living. From this point of view protectors and protected alike exhibit a *low* morality; there is no moral elevation without open discussion. And literary elevation is one particular case of moral elevation. Just as "the only check that ought to be placed on literature is criticism" (A. R. Orage), so good literature is itself critical and revealing, and protective literature, the literature of comfort and consolation, is bad.

But, whatever the detailed differences may be, the first point to be made is just that there are different moralities,

opposing sets of rules of human behaviour. This is because there are different ways of life, different "movements", each with its own rules of procedure for its members. Such rules, it may be noted, need not have been formulated; but the more important point is that, formulated or unformulated, they are not to be regarded as preceptual or mandatory. We speak of "laws of nature", but by this is to be understood the ways of working which things themselves have and not anything imposed on them from without, anything which they "obey". In the same way, the moral question is of how people do behave and not of their "obeying the moral law"; obedience, or the treating of something as an authority, is just one particular way of behaving, the moral characterisation of which has still to be given. The phrase "how people do behave" may be misleading here. It is not a question of taking any type of activity in isolation; we do not have a morality until we have a way of life, a number of ways of behaving that hang together, that constitute a system—and it is in the conflict of such systems that rules come to be formulated. From this point of view it might be best to say that a morality is a way of life or a movement; and in that case the person who spoke in the name of "morality" would be neglecting to specify the movement he represented.

That, at least, is one defensible usage. Alternatively, we might identify morality with the preceptual system, with living in obedience to authority—or, admitting that there are many authorities, we might speak of many moralities, while recognising that there is also a movement, a way of living, which rejects all authority but still has its own character (or, again, we might recognise many "free" movements). The multiplicity of authorities, however, is just what the authorities will not admit; each sets itself up as *the* authority, as laying down what is absolutely mandatory, what, in the nature of things and not relatively to any particular movement or director, is required of people. To speak on behalf of morality, in this sense, is to speak on behalf of the principle of authority—and so again (whatever the actual power may be

that is thus metaphysically bolstered up) to support a low way of living. It is low, in particular, because it is anti-intellectual, because it is necessarily dogmatic. Some account can be given of the relation of a particular "rule" or way of behaving to a certain way of life, but it can have no demonstrable relation to "the nature of things". To say that something is required by the nature of things is just to say that it is required—to say, without reason, that it "is to be done"; and, as soon as any specification is attempted, the whole structure breaks down. If, for example, we are told to do something because God commands us to do so, we can immediately ask why we should do what God commands—and any intelligible answer brings us back to *human* relationships, to the struggle between opposing movements. In that region, to accept authority is simply to bow to superior force; but it eases the situation for both oppressors and oppressed to represent this as bowing to some Absolute, to the authoritative as such—in other words, to the unintelligible.

This does not mean that reasons can be found for everything we do; it can be shown that a particular line of action contributes to a more general form of activity, but such considerations of policy always lead back to activities for which no reason is sought, to activities in which we are actually engaged. In fact, ways of life are prior to policies, they *frame* policies, and, while different ways of life may have sufficient in common to permit of some compromise, some working arrangement, it constantly happens that what suits one does not suit another, that what from one point of view is a reason is from the other no reason at all. All they can do, then, is to fight it out—even the compromise depends on the exertion of a certain force by the various parties to it—and the struggle between different ways of life may be taken as the outstanding feature of social existence. But what the authoritarians, the "moralists", maintain is that their reasons are "essentially reasonable", that they are of a higher order than those of the non-authoritarians, and in this way they seek to disarm their opponents. The argument is of an ontological character; that

which is binding-in-itself must have greater force than that which is not, just as that which exists-in-itself must be stronger than anything which exists under certain conditions—and ceases under certain conditions. And the freethinker is made to appear to be putting that which depends on something else above that which depends on nothing else, when he is really saying that there is no such thing as the latter, that the conception of the non-dependent is a confused one. Though this type of authoritarian argument (whether in its classic form, dealt with by Kant, or in more special forms) has been refuted again and again, it still imposes on the weak-minded; but even they would begin to see daylight under conditions of fair intellectual fight, and that is why authoritarians invariably add censorship, preventing arguments from being even heard, to intellectual crookedness.

The main point is the close connection between the upholding of a hierarchical doctrine of reality and the maintenance of a *social* hierarchy. And though, as already noted, we can distinguish various authoritarian movements (though there are different views of the proper order of the layers in the social pyramid), they all come together in this, that they recognise *some* order, that they deny the necessity or naturalness of conflict, i.e. that they take a solidarist view of society; and thus it is that, in spite of superficial differences between them, they are regularly to be found working together in opposition to “disorder”. The accusation that he is upholding privilege and servitude is, of course, one that the ordinary solidarist would indignantly repel, since he is maintaining that all are equally partners in the social concern; but it is by this very pretence at equality (as far as it is made plausible) that inequalities are covered over and the unprivileged are detached from the independent movements which are their escape from servitude. In fact, philanthropy implies inequality; it is “relief” given by the privileged to the unprivileged, but it leaves privileges as they are. The best intentions in the world will not succeed by such methods in *bringing about* equality, in bringing the lower orders up to

a higher level; it is by what they *are*, not by what they are given, that men will win release from servitude. If the philanthropist were really going to assist those he professes to be interested in, he would join their movements, he would *be* one of them. But he is not; and his philanthropy (his good intentions, his self-righteousness) is merely a means whereby their movements are weakened. It is curious that the philanthropic ideology is what nowadays passes as "Socialist", but its purpose in its new setting is the same as that of ordinary bourgeois philanthropy, to pass off a hierarchical system as egalitarian, to sidetrack on the one hand, and on the other hand to justify the repression of, those independent movements which would alter the balance of social power.

Now all this is highly relevant to "Ulysses". The position taken up by Joyce (as Stephen Dedalus) is above all a refusal to *serve*, a rejection of despotism, however benevolent its guise, a rejection of the master-servant relationship (with which is bound up the whole ideology of utility and social service), and hence a rejection of theology. More exactly, we are presented with Stephen's mental struggle against servitude, a servitude imposed upon him by the submission of his country to "two masters . . . the imperial British state and the holy Roman catholic and apostolic church"—and hence a struggle against Ireland itself, though this is something from which he can never be wholly free. To the bowelless critics of the book, steeped as they are in servility and easy social compromise, this struggle means nothing—and so they fasten on incidentals: the grotesqueries of style, the printing of the "unprintable", the general "unpleasantness" (i.e. the fact that the portrayal of any real struggle does not comfort and console). But, for the "intellectual imagination" of Joyce, the makeshifts of the bourgeois world, and of the well-ordered universe which is its theological counterpart, are intolerable.

It is idle, then, to call Joyce "blasphemous"; that is only to say that the battle should not be fought—it is no answer at all to Joyce's intellectual attack, to his bringing out of the human, the servile, content of theology. His "free thought"

consists, in the first instance, not in rejecting theology, but in taking it quite seriously. If there *were* a master of the universe, then Joyce, to the extent of his power, would fight against him; he will not endure servitude, he cannot accept sacrifice and atonement, he rebels against the low conception of life, the base morality, which they imply. And this means that he is considering them in human terms (these being the only terms in which they are intelligible), that he recognises the arbitrariness of "analogical reasoning", of the mystery-mongering which makes such things partly human and partly non-human. "With me all or not at all."

"Ulysses", of course, is not a work of science. Dedalus works out no Feuerbachian reduction of the divine world to the human. Nevertheless, that is what is involved in his soul's crisis in the book. It is institutions, earthly authorities, that impose servitude in the name of heavenly authority. And it is the earthly content of theological conceptions that alone has psychic and social importance. "My hell, and Ireland's, is in this life." Hell, the self-alienation of the spirit, occurs here and now; it is something that has to be fought through, not something that we can avoid by propitiating human or "cosmic" powers, not something that we can be protected from. He who remains in the circle of propitiation and protection remains in hell. He alone works through it who rejects the easy ways of escape—nodding at an image, repenting, letting one thing "stand for" another—the whole system of anti-intellectual pretences. This is the central theme of "Ulysses", and it is this that the Homeric material (the descent to and return from the shades, contentment with a swinish existence, mock-heroism and so forth) subserves. And it is because the theologians cannot meet this intellectual attack, while at the same time they wish to keep up the pretence at intellectuality which theology is, that they take refuge in accusations of blasphemy and immorality, of damage to immature minds—when in fact the issue raised is whether the life *they* uphold is not death to the spirit and when Joyce's free speculation is setting itself up as a *morality* (in the first sense suggested

above), as a way of life opposed to precept and protection (which, as we have seen, is above all the protection of vested interests).

Actually, "Ulysses" would produce little or no effect on the immature; it is a book for the mature, but not for the servile, who are shocked by it because it confronts them with a freedom they have lost, because they can no longer face unpleasant facts and particularly their own defeats, because it attacks the ceremonial and fetishistic system by which they conceal these things from themselves. And because the immature have not yet been defeated and might come to see through the prevailing pretences, their guardians are anxious that they should not learn that anything but the ceremonial system exists. It is noteworthy that what they are not to hear about is above all *sexual* transgression; this is what "immorality" has come to mean. Our censors do not say, "This book portrays spite, that book portrays tyranny and greed, therefore children must not read them in case they should become spiteful, tyrannical and greedy." There is a general understanding that in a proper book evil conduct meets with some punishment; but, for the most part, such faults are not even noticed, and they are certainly not taken to be contagious in the way that *sexual* impropriety is supposed to be. Is the position, then, that sexual freedom has a particularly secularising tendency, that it cuts more sharply than other "transgressions" across the hierarchical system? It is certain that, in moralistic theories, hierarchical conceptions are most strikingly applied to sexuality; thus it is demanded that sexual enjoyment be subordinated to reproduction, and the independent pursuit of it is regarded as a grievous sin. In fact, it is especially in regard to sexuality that the conception of sin finds application and that "guilt" is felt; and it may be that, without exercising some command over the sexual life of the lower orders, authorities could never keep them docile.

Feuerbach, in his "Essence of Christianity" (trans. Marian Evans; Trübner & Co., 1881), throws some light on

this question. He connects Christianity's depreciation of sex with its individualistic character, its concern with personal salvation, and he says (p. 167): "The true Christian not only feels no need of culture, because this is a worldly principle and opposed to feeling [i.e. to subjectivity]; he has also no need of (natural) love. God supplies to him the want of culture, and in like manner God supplies to him the want of love, of a wife, of a family. The Christian immediately identifies the species with the individual; hence he strips off the difference of sex as a burdensome, accidental adjunct. Man and woman together first constitute the true man; man and woman together are the existence of the race, for their union is the source of multiplicity, the source of other men. Hence the man who does not deny his manhood, is conscious that he is only a part of a being, which needs another part for the making up of the whole of true humanity. The Christian, on the contrary, in his excessive, transcendental subjectivity, conceives that he is, by himself, a perfect being. But the sexual instinct runs counter to this view; it is in contradiction with his ideal: the Christian must therefore deny this instinct."

Feuerbach, in fact, treats love (natural love) as the core of humanity, the central good; and it may be argued, along these lines, that freedom in love is the condition of other freedoms, that while in itself it does not constitute culture, there can be no culture without it, that it continually enriches and is enriched by the various forms of productive (enterprising) activity—Science, Art, Industry. Thus while, in general, a doctrine of individual salvation is calculated to weaken any *movement* of the enslaved and to nullify or divert their discontent with their place in the earthly system (their "lot"),¹ the weakening of the fundamental human tie is an important step in the process. It is also, I think, argued by

¹ Cf. Thamin, *Saint Ambroise* (quoted by Sorel, *Eglise, Évangile et Socialisme*; appendix to *La Ruine du Monde antique*, Rivière, 1925, p. 309): "Faisant almer aux pauvres leur pauvreté, aux humbles leur humilité, il [le christianisme] préparait pour ceux qui veulent avoir leur royaume ici-bas, des sujets dociles et des victimes volontaires."

Feuerbach, and it is in any case plausible, that what the religious person sacrifices is something that he values very highly, something that he glorifies by handing it over to divinity. Thus his sacrificed sexuality becomes an attribute of the divine, but, of course, in a distorted, "idealised" form—and this idealisation further serves to keep his actual sexuality apart from the active life which it would fructify. It is, at any rate, not hard to see that the heavenly imaginings of the upholders of chastity are symbolic, that they have a hidden sexual content; there is, indeed, much that is sexual in their manifest content, and one of the commonest forms of "blasphemy", one of the earliest exercises in freethought, is to explode the mysteries by completing the earthly parallel. There is something of this in "Ulysses" but it is not prominent; the main point for Joyce is the falsity of it all. But that cannot be entirely separated from important social considerations—the central place of sexual repression in any repressive system, the way in which fear of sexuality carries over into fear of social disorder, the linking of chastity (which can never be other than *distorted* sexuality) with quietism.

That Joyce is interested in the question of sexual freedom is shown in his play, "Exiles", where Richard Rowan "wounds his soul" in his search for "freedom from all bonds". However, the main issue in "Ulysses" is still the intellectual one, and the sexual side of the book is only incidental to that. Even its printing of the "unprintable" is to be taken mainly as an intellectual rejection of the customary—remembering always that there is a considerable element of sexuality in custom. The most bawdy conversations (e.g., in the Lying-in Hospital) fall far short of what is quite common in everyday life, and are governed by the intellectual and critical interest that characterises the work as a whole. Moreover, the characters are none of them pronouncedly sexual; Marion Bloom, who has been much referred to in this connection, says a good deal that is not usually recorded (again the attack on the customary), but it is to be remembered that Joyce is giving words to her half-formed and nascent thoughts, and, that

being understood, her attitude to sexual enjoyment is not at all abnormal. Her husband is more "perverse", but even his peccadilloes are commonplace enough to those who have given any consideration to sex in society. There is no question, of course, of explaining away the sexual side of "Ulysses". Sexual entanglements, cross-purposes, dissatisfactions, terrors, are an important feature of the hell of bourgeois existence. But the crux of the matter is servitude and the escape from servitude.

But now it may be asked why, if Joyce's rejection of authority is an intellectual one, he does not attack it scientifically instead of artistically, does not write a treatise instead of a novel. One answer is that the artistic attack is more effective. Intellectually, the exponents of hierarchy have not a leg to stand on, but they can *ignore* and promote ignorance. And here the work of science is more ponderous, it demands time and detachment, whereas the work of art is more pointed, it particularises, and so can bite through the defences of those whom mere argument would leave unaroused. But, again, the antithesis is not so sharp as might appear. The true scientist, who is not devoted to utility, to "service", produces what may well be called a work of art. And the literary artist, in particular, has much of the scientist in him; he describes, he classifies, he correlates. So when Joyce speaks of "the eternal affirmation of the spirit of man in literature", he is evoking a spirit which is scientific as well as artistic, and he is specifying what is his own escape from servitude.

It is interesting to observe here that Dedalus refers to what binds him as *history*. "History is a nightmare from which I am trying to awake." This awakening is art. Art is not concerned with dates, it is not concerned with the conditions and consequences of its subject-matter, though it may present a succession of phases *within* that subject-matter. Thus, while it may be said to particularise in that it presents something concrete and not a general formula, it may also be said to generalise, to present an "eternal essence", as Joyce,

through the medium of a day in Dublin in 1904, presents servitude and the escape from it as states of the human soul. What art, on this showing, is most sharply contrasted with is utility. Utility insists on conditions and consequences; its sharp distinction of means and ends is bound up with hierarchy, with the master-servant relationship. But for art all things are on an equality; they are all alike æsthetic material; in any of them *character* can be discovered. Art, in other words, is concerned not with what things are "for" or what they are "by means of" but with what they are. And this is hard to find just because of utility, because in human life things become cluttered up with meanings and purposes. It is this which gives point to the description of the painter as restoring "the innocence of the eye", breaking up conventional associations; and in the same way the literary artist can be described as restoring the innocence of our sense of humanity, as against adventitious commendations and condemnations. On this basis, too, we can see that the artist is supremely productive or creative—in fundamental opposition to the "consumer's view". That is to say, the good artist; for all arts can degenerate, and the bad artist is the supreme purveyor of consolation, the most efficient caterer to the consumptive or servile mentality.

Taking art, however, as good art, we find it diametrically opposed to preceptual morality; and what Joyce has shown us in "Ulysses" is the crisis in the struggle of a soul from bondage to freedom, from moral compromise to artistic integrity. It is thus a very special product; like all Joyce's larger works it is an essay in the theory of art as well as in art itself. It not merely does what art does but shows what art does; and, being thus a double attack on moralism, it is doubly attacked by the moralists. But, leaving this special case and taking art in general, we can say that it breaks rules, transgresses boundaries, that is, the rules and boundaries set up by human purposes; it follows the lines of the things themselves. In so doing it is dangerous as well as revealing; it stimulates new perceptions, but it runs foul of the safety system to which men

cling. At the same time, such a system is never actually safe; safety or crowd motives (characteristic of bourgeois mentality) are, as already indicated, liable to panic. Thus the insights of art may often show the way out of a social impasse. When all is said, art occurs in society, in history; *it* has conditions and consequences, however little it may concern itself with such in its material. In brief, the struggle between art and moralism is the struggle between innovation and conservation in society; neither can conquer, but that is not to say that the artistic way of life can compromise (that way lies artistic death and social stagnation); it must still seek to *discover* and to push its discoveries as hard as it can against the inertia of custom and the "protection" of privilege.

REVIEWS.

HUME'S THEORY OF THE EXTERNAL WORLD. by H. H. Price.
Clarendon Press, Oxford. 1940. Pp. 228. Australian
price: 25s.

THE task which Professor Price has undertaken—that of explaining and discussing Hume's theory of perception as it is developed in Book I, Part IV, of the "Treatise"—is certainly one which needed to be performed. The standard commentaries are here at their most sketchy and inaccurate, and yet what Hume has to say is both of intrinsic importance and of considerable interest in its relation to his more general thesis. Of course, it is not difficult to understand why this part of the "Treatise" has been so frequently ignored or misrepresented. Hume's argument is tortuous and his conclusions somewhat bewildering—at least to those who accept the Reid-Green tradition of interpretation. Furthermore, this part of the "Treatise", as Price points out, is very scantily represented in the "Enquiry" and in consequence had little effect upon Hume's immediate successors.

It is worth while considering at this point, although this is the kind of problem Price does not take up, exactly why there is so marked a contrast between the proportions of Hume's argument in the "Treatise" and in the "Enquiry". The principal reason, as has become clearer since the discovery of the "Abstract", is that Hume considered that his general purpose (viz. to set up "a new foundation for the sciences" by substituting for metaphysics a positive "science of man") has become obscured in the "Treatise" on account of the variety of particular topics with which he had concerned himself; and he thought it would be possible to illustrate his thesis adequately, and to show its real nature more clearly by concentrating upon what he takes to be the simplest of his arguments, that which concerns itself with necessary connexion. There is the further point, however, in his choice of this argument in particular (and this comes out more explicitly in the "Enquiry") that it illustrates his thesis in

a way in which his other arguments do not. He seems, indeed, himself to be a little bewildered about the outcome of his theory of perception. He has found himself with conclusions which are not quite those he would have expected; and this bewilderment is reflected in the major inconsistencies which appear in his argument.

Price, however, does not concern himself with these broader issues; he believes that it is possible to consider the value of Hume's theory of perception, taken in isolation from the rest of his work, just as previous commentators have contented themselves with a discussion of his theory of causality. But it might be said, on this point, that the attempt to consider Hume's theory of causality in this way, by reference, at most, to what precedes it, has not infrequently given rise to serious misinterpretations of his argument and, more important still, to "answers to Hume" which beg the main points at issue. Certainly, Price's own treatment of Hume is not entirely of the kind which would give us confidence in this method of isolation.

He begins by considering Hume's well-known distinction of questions: "We may well ask", Hume says, "what causes induce us to believe in the existence of body? but 'tis in vain to ask whether there be body or not. That is a point we must take for granted in all our reasonings." Price wants to know in what sense it is in vain to ask whether there is body or not, and he distinguishes between two interpretations: the first that as human beings we are so constituted that we cannot contemplate the possibility that bodies do not exist, the second that "Do bodies exist?" is not a question at all but merely a sequence of words which has the *form* of a question. Hume, Price believes, was inclined to the first interpretation and Price points out that if so he is committed to a quite untenable position, because he is saying that no human being can contemplate a possibility which, in the act of denying that it can be contemplated, he is himself contemplating.

Thus, Price considers, we can only maintain that it is in vain to ask whether body exists if we are prepared to say

that this question is a meaningless one, of the same form, he suggests, as "how many miles is it from here to next week?" Now, here it can be maintained against Price that this is not the kind of question with which "Does body exist?" would be taken to be analogous by those who maintain that "body does not exist" is meaningless. "How many miles is it from here to next week?" is meaningless because nothing could be said which in relation to it could possibly be called a *correct answer*. Suppose, on the other hand, we ask the question "Are some universal propositions true?", then there is a correct answer, "some universal propositions are true", but the person who maintains the incorrect answer "no universal propositions are true" leaves himself in a very peculiar position. It is usually said that "no universal propositions are true" is "self-contradictory", but the conception of self-contradiction is an unintelligible one. What occurs, in a more accurate way of putting the matter, is that we can use the proposition asserted as a term in a proposition which contradicts that proposition, so that we can say "this (i.e. no universal propositions are true) is a true universal proposition" and thus contradict "no universal propositions are true". The same kind of situation would arise if to the question "Is it possible to answer a question in the negative?", it were replied "No". In order to show that "Does body exist?" is of the same kind as these other questions, it would be necessary to show that in making the assertion "body does not exist" we were saying something which could be used as illustration of the fact that body *does* exist. It is important, in this connexion, to remember what Hume means by body, viz. something existing independently of us. He also, of course, takes body to be external to us (although, as Price points out, this is quite inconsistent with Hume's view that the mental is not spatial), but "externality" is a matter of minor importance. The problem, then, is to show that we must take it for granted that there is such a thing as independence in any statement which we make, and we can do this most easily by taking the extreme example, the assertion "what we perceive is always

dependent upon our perceiving it" and pointing out that this is being asserted as something which is not dependent upon our perceiving it for its existence, so that even in saying that there is such a thing as dependent existence we are saying "it is the case that A is dependent upon B" and taking this to be true whoever perceives it or fails to perceive it. In the same way, in saying "bodies do not exist", we are saying "it is the case (independently of what anyone perceives or fails to perceive) that all existence is dependent (upon what?)".

We might, then, find reason for supporting the contention that the existence of body is something we must take for granted in all our reasonings (this will mean, of course, that it is unprovable since any proposition we present as proof of it will already take it for granted), but it is clear that Hume does not himself take seriously his own assertion. Apart from those passages elsewhere in the "Treatise" where the existence of body is questioned and even, it would appear, denied (passages to which Price draws attention), we could argue that in going on to discuss the causes of our belief in body, Hume is implying that there was a time when we did not have this belief and hence that, however strongly a person ordinarily holds this belief, it is none the less possible not to hold it.

This is naturally the case, since Hume holds that we begin by perceiving impressions and ideas and these are supposed to exist dependently (in the first place, dependently upon our mind, and when the mind is itself analysed into a bundle of impressions and ideas the matter of dependent existence is not reconsidered), so that the question for him is how we ever come to believe that there is such a thing as independent existence. Now, as Price shows, one grave difficulty in Hume's position is that in order to prove that what we perceive is something which is dependent upon us for its existence he has to assume a knowledge of independent existence (the nervous system and the like). We might expect Hume to rejoice in the paradox which results—that in order

to prove that what we perceive exists dependently, we have to assume independent existence, although once we assume independent existence we can prove that we have no right to assume it. This is parallel to what Hume argued a little earlier in the "Treatise"—that we cannot prove that proof is impossible without assuming that there is such a thing as proof, but nevertheless we can produce a proof, of the same kind as those we ordinarily accept as proof, that proof *is* impossible. But Price points out that he is in fact very much concerned to show that what we perceive is always something mind-dependent, and he is not at all content to argue in the manner we might expect, that whether we take it that what we perceive is mind-dependent or not we find ourselves involved in insuperable difficulties.

Here again, we have to go beyond Price's treatment if we want to know the reason for Hume's curious attitude on this point, and we must refer again to Hume's double purpose—to show that the attempt to work out a metaphysics leads to the taking up of positions that are obviously untenable and, on the other hand, to show that there is a tenable science of man which can serve as a substitute for metaphysics. Now, he constantly equates the theory of ideas (in some form or other) with philosophy and therefore devotes a great deal of attention to showing that if we admit only what strictly follows from this theory we reach conclusions which are quite unbelievable (which "admit of no answer but produce no conviction"). But it never occurs to him that if we reach such conclusions then the theory of ideas must be at fault; to him it is the philosophical method, of admitting only what can be formally proved, which has to be discarded. He cannot, however, discard its proof of the theory of ideas, because that is necessary to show that the science of man is the central science. That is plausible if whatever we know is taken to be somehow "in our mind", but it is not plausible on any other theory of knowledge. Therefore, the criticism Hume directs against philosophical argument generally cannot be directed against the particular argument to show that what we know is always

something dependent upon mind for its existence, unless he is to discard entirely his more positive purposes.

We said that in asking for the cause of our belief in body Hume is forgetting that in *all* our reasoning we must take for granted the existence of body, but Price, while he does not make this particular point, considers that Hume also forgets much else that he has already said or is to say later. Hume, he argues, in asking what *causes* induce *us* to believe in the existence of body is assuming that we have a knowledge of cause and of ourselves which is somehow superior and prior to our knowledge of body, but, in fact, on his own showing, "cause" and "ourselves" are just as much constructions as body. Here, however, Price is failing to observe that while necessary connexion and personal identity might be described as constructions, Hume could easily put his question in a form involving a reference to neither of these—"what relations between impressions are constantly precedent to and conjoined with a vivid idea of body?"—and this is indeed what is actually considered in the discussion which follows. If we are to criticise the question in this formulation it could only be by going much further than Price in our criticism of Hume, by criticising the assumption that we can have knowledge of relations between "dependent existences" before we have any conception of independent existence.

Price wants to amend the form of Hume's question in an entirely different way. What Hume is doing, according to Price, is to treat a philosophical enquiry as if it were an enquiry into empirical psychology. If he were to recognise the real character of his procedures, he would see that he is not seeking the causes of psychological phenomena but trying to solve a problem in "philosophical analysis", viz. "Given what characteristics of sense-impressions do we assert material-object propositions?" The question he is trying to answer is "about the *meaning* of material object-words and material object-sentences and the rules of their use". This attempt to bring Hume up to date, however, involves a distinct misapprehension of his purposes; and, indeed, in his more

detailed exposition and development of Hume's argument, Price is constantly compelled to make reference to "empirical psychology", nor could he help doing so without entirely disregarding what Hume says. For Hume tries to do exactly what he says he is going to do—to find the *causes* of our belief in body. He certainly would not accept the view that in discovering what leads us to believe a proposition we discover what that proposition means; on the contrary, he insists that there is a transition (and of a causal kind) from our apprehension of certain impressions and ideas in relation to one another to our belief in the existence of body, that what we mean when we say that such and such a body exists is quite different from what we mean when we say that such-and-such impressions stand in a certain relation to one another.

To say, as Price does, that Hume "fails to distinguish psychological issues from philosophical ones" is to beg one of the most important questions which Hume raises, because he constantly argues that it is only by substituting psychological discussions for philosophical ones that issues can be presented which are capable of solution. This theory may be a false one, but to say that Hume fails to make a distinction which he denies to be a real one will certainly not advance discussion. A similar point arises in regard to Price's account of the deficiencies in Hume's theory of the imagination. He recognises the central rôle which imagination plays in Hume's theory, and he sees what commentators on Hume have usually not observed that we are only indicating that rôle in a partial way when we say that it converts our experience of constant conjunction into a belief in necessary connexion, for this experience itself (as an experience of conjoined *bodies* as distinct from impressions) is only made possible with the help of operations of the imagination. But he goes on to say that there is an "imperfection of terminology" in Hume's theory, because he fails to make Kant's distinction between the Transcendental Imagination, which makes experience possible, and the Empirical Imagination, which works associatively and about the operations of which we

can intelligibly ask causal questions. He considers, however, that Hume came close to this distinction when he differentiated those "principles" in the imagination "which are the foundations of all our thoughts and actions" and those others which are "changeable, weak and irregular".

What Price fails to observe, however, is that on Hume's account of the matter, the imagination which "makes experience possible" works *associatively*; it is the laws of association which, as Hume puts it in the "Abstract", are "to us the cement of the Universe". Indeed to describe the fact that Hume does not distinguish an Empirical from a Transcendental Imagination as an "imperfection of terminology", to say that he "half-sees" the force of this distinction, is to ignore what is most characteristic in Hume's philosophy or, at least, to treat it as merely incidental. To Hume a Transcendental Imagination would be in the same position as a transcendental anything else: a fiction of the disreputable kind. His concern all the while is to show how, given certain impressions and ideas (including in the impressions, of course, imaginative tendencies), we can account for the beliefs we in fact hold; it is no "imperfection of terminology" which leads him to adopt this approach, but a firm conviction that it is the only one possible. If, he would consider, we cannot ask causal questions about the Transcendental Imagination, then we cannot possibly show that it "makes experience possible"; we have no way of showing that something of which we have no experience (because if we had experience of it, then this experience would have to be made possible by something else) can in some non-empirical way make it possible for us to make empirical observations.

There are, then, very considerable deficiencies in Price's account of Hume, and these occur especially when he is generalising about Hume's purposes. The more detailed account of Hume's argument which follows is very much more satisfactory; Price forgets that Hume is talking about "sentences" and not only gives an adequate account of his argument but also indicates the main inconsistencies into

which he falls. One could have wished, however, that more attention had been paid to the connection between what Hume argues here and what he had to say in his discussion of Space and Time, to which Price makes the briefest of references. Price points out that in Hume's theory of the origin of our belief in the existence of bodies, this is taken to be partially dependent upon the recognition of identity, even though in talking about how we come to recognise identity he had been forced to take for granted the independent existence of bodies. There are really, however, three such conceptions—duration as well as identity and independent existence—with which Hume juggles; his general difficulty being to show how we could believe that there was such a thing as continuity on the theory of impressions and ideas. On this point, Price objects to the description of Hume's philosophy as atomistic and maintains that, since Hume talks of complex impressions, this shows that he recognises that we are directly aware of "sensible continuity". But how can this be reconciled with Hume's view that Space and Time are "dispositions" of perceptions? If we perceive continuity, then perceptions are *themselves* spatial and temporal. Price notes indeed that Hume speaks of *minima visibilia*, but says that we can hold that we can perceive complexities and yet also hold that these complexities are analysable into "a finite number of sensibly-distinguishable parts, which are such that no part smaller than they are could be sensed by us". But what Hume actually says is that "my senses convey to me only the impressions of coloured points, disposed in a certain manner" (*Treatise*, Bk. I, Pt. II, § 3); there is certainly no suggestion here that what we sense could be sensed as continuous, that it is by analysis that we arrive at the *minima visibilia*.

The outcome of Price's consideration of Hume's theory is a very considerable simplification of it, since Price believes that there is no need for some of the transitions of the imagination which appear in Hume's theory and which very greatly complicate it. We can put, Price considers, Hume's main point in a fashion something like this: we sometimes

have a series of perceptions A_1, A_2, A_3, A_4 (in the case of what Hume calls constancy) or ABCDE (in the case of what Hume calls coherence). Then, experiencing on some later occasion A_1 and A_4 only (or A . . . DE), the similarity between this series and the earlier one takes our mind back to the earlier series and leads us to suppose that on this occasion there are an A_2, A_3 (or a BC) which occurred without our perceiving them. Similarly, in more complicated cases, if we perceive sometimes ACDE, sometimes ABCE, ADE etc., we are in a position like that of a man who from several imperfect manuscripts constructs a perfect one; we believe that there is a series ABCDE of which we have perceived a section only on these various occasions. The important point about Hume's theory, Price considers, is that he sees that we commonly believe ourselves to perceive very much more than we do perceive, so that, for example, we should all say that we have seen a person walking across the quadrangle, although we may never have watched anybody on his entire path across the quadrangle.

It is certainly true that Hume's emphasis upon "supplementation", his constant assertion that when we say we are relying on our senses or our memory we forget how much we are bringing with us in our observations, is one of the fundamental points in his theory. He is one of the outstanding critics of "empiricism" understood as a theory of pure observation, a rejection of hypotheses, even though this criticism is restricted because he still holds that there is a limited kind of perception (of impressions and ideas) where our observation is pure, and our judgments infallible. But, even ignoring the view that what we perceive is something dependent upon mind for its existence, and taking it that what Hume is saying is nothing more than that there are intervals between our perceiving of things, but that nevertheless we believe (in most instances) that there are no such gaps in the history of the things we perceive, or, again, that we constantly ignore the fact that we have seen only a part of a thing and speak as if we had perceived the whole of it (which

is one principal source of error), we can still object to his theory that he gives no real account of the *character* of the imagination. The imagination is like a *deus ex machina*; we can never tell at what stage it is going to intervene in Hume's theory or what new powers it will have assumed. Price suggests that Hume needs some substitute for Kant's "Ideas of Reason"; it can be said rather that he needs a psychology of interests and sentiments or, as we might put it, that he needs to treat Imagination as well as Reason as "the slave of the passions". It is certainly by means of his loves and his hates that the child develops a sense of objectivity; the postulation of regularities (so that the child turns trivial routines into laws of nature) is connected with the demand for security.

Of the rest of Price's argument it is impossible to speak briefly, with any hope of being accurate. It is that type of ingenious epistemology which we have come to expect from Price; and the familiar doctrines of "families of sense-data", "spatial synthesis" and "existence from a certain place" reappear in an attempt to solve the difficulties in which Hume finds himself, without abandoning the assumptions which Price and Hume have in common. He tries to show at length how we come to believe, on these assumptions, that there are such things as "unsensed sensibilia" and under what circumstances we are "justified" in doing so. His arguments will be worth the close attention of all who have an interest in modern epistemological theory, whether or not they have any special concern with the interpretation of Hume.

J. A. PASSMORE.

FROM BEAST-MACHINE TO MAN-MACHINE: Animal Soul in French Letters from Descartes to La Mettrie. By Leonora Cohen Rosenfield. New York: Oxford University Press, 1941. Pp. xxviii, 353. Price: \$3.50.

PHILOSOPHICAL thought in America appears to be increasingly directing itself to the study of the history of ideas, and a considerable place in this literature is occupied

by studies in the thought of the seventeenth and eighteenth centuries, especially in France which, while it came under certain foreign influences, was culturally central. Mrs. Rosenfield, who succeeds in showing the importance in this development of the Cartesian doctrine of "animal automatism", mentions particularly two publications of the Johns Hopkins Press—"The Happy Beast in French Thought of the Seventeenth Century", by Professor George Boas, and "Man and Beast in French Thought of the Eighteenth Century", by Dr. Hester Hastings; she has dealt with the work of the writers considered in these books, and has also considered the contributions to her main topic of a number of writers not previously discussed in this connection by present-day critics.

She refers also to the critical work of Professor Albert G. A. Balz, whose article, "Cartesian Doctrine and the Animal Soul: An Incident in the Formation of the Modern Philosophical Tradition", I referred to in my review, in the issue of this Journal for December, 1937, of Volume III of the Columbia "Studies in the History of Ideas". I am interested to find that the point I there made, that "we have as much reason for regarding *other men* as automata as for thinking so about animals", is one that was frequently raised by critics of the Cartesian view in the period under consideration—but I shall return to this in discussing the main logical issues. The more general point that I made, that the usefulness of such studies "is limited by the authors' desire not to obtrude their own views", is one that I would again insist on. It is impossible to trace historical connections, to see how one position clashed with or passed into another, without some knowledge of the matters in dispute; and, while the historian will always find it hard to avoid misinterpreting views he disagrees with, his illumination of the situation will be proportional to the soundness of his own views—indeed, their ability to make history intelligible will be a particularly good *test* of these views, whereas, if he "effaces himself", he will be proceeding on certain unexamined assumptions which may have thoroughly distorting effects. Thus it may be true, as

Mrs. Rosenfield says (p. 205), that the "story of the struggle between mechanism and vitalism is a never-ending one", but it would still be the case that, if vitalism is false, we shall understand the struggle better by knowing that. And so we may criticise her conclusion (p. 206): "We can no more logically or experimentally disprove the thesis of the beast-machine than we can experimentally or logically prove the converse. Probability rather than certitude is all that can be expected in animal psychology, as many of our disputants were well aware. So we shut the window on the past with a consciousness of our indebtedness to those men who before our eyes helped to forge the tools of modern thinking." We are not greatly indebted to them, it may be said, if they leave us in uncertainty. But, while Mrs. Rosenfield's view of logical proof is one that she is maintaining with certainty and that must have affected the whole of her study of this literature, it is one that would have been rejected by many of the disputants, and its rejection would give us a *different* view of the controversy. There is no question, then, of "historical impartiality" as a kind of polite scepticism; the good historian will avoid falsifying his material, but he can do so only if he knows what is not false.

There is, in fact, even when it is taken as a preliminary study, a certain weakness of handling in the book as a whole—and this occasionally goes with weakness in English. In Appendices B, C and D (pp. 241-299), where the contributions of various writers to the controversy are dealt with more fully than in the main text, the author seems to be impelled to maintain, even when she does not demonstrate, that each contributed something distinctive to the current ideas. Thus we read (p. 280): "Difficult as it is to estimate the exact weight borne by the 'De anima sentiente', we infer that just as a sandbar is built by the accumulation of innumerable tiny offerings of the waves, so the structure of the beast-machine received its share of building material from Edmond Pourchot." Again (p. 298): "The harmony that reigns in Macy's treatise between his habitual Cartesian glorification

of the term 'reason' and the later idolisation of the symbol 'experience' *casts an interesting light upon* the mingling of rationalistic and empirical trends during the latter years of the first half of the [eighteenth] century" (where the phrase I have italicised seems to mean merely "is an example of"). With this may be compared the statement (pp. 46, 7) that the final section of one of Bossuet's chapters "wavered back and forth between Peripateticism and Cartesianism, but its last words *threw a favorable light upon*" (translate *favoured*) "the definition of animal instinct as a mechanical force". And in a number of passages the word "refuted" is used when all that is apparently meant is "argued against". The lack of force in comment (which is, of course, more important than slips in English) comes out also in the treatment of the *poetic* contributions to the controversy; the poetry itself is weak (not surprisingly it is very much on the side of our animal friends), as is bound to be the case in didactic work, following contemporary thought instead of stimulating new perceptions; and it merely illustrates the range of social interest in the subject—though this is an important enough point to make.

The main point, however, is the development of doctrine, the way in which the Cartesian solution led to controversies and new problems, for which in turn solutions were found, until, as a result both of adhesion to and of reaction against Cartesianism, a new outlook is generally established, and though, as has been indicated, controversy still goes on, the emphasis, the crucial points are different—and, above all, theology recedes into the background and natural science achieves autonomy. As a first account of the doctrinal shifts which marked this transition, Mrs. Rosenfield's discussion is a clear and valuable piece of work—assisting towards a deeper understanding of the issues involved in "history of thought" in general and in the original vogue of Cartesianism in particular.

Dealing first with Descartes's own view, the author argues that it is founded on his interest in mechanistic science (which he applied as much to the human *body* as to

animals) and on his metaphysical separation of extension and thought. This division is confounded, pure spirituality is compromised, if we adopt the Peripatetic or Scholastic doctrine of a "sensitive soul" intermediate between matter and mind; and to regard the animal soul as of the same nature as ours is to encourage atheism, since it will hardly be maintained that animals can partake of the benefits of religion—though, as the author points out (p. 8), it might rather be Descartes's view that was regarded as encouraging atheism, since, if a purely mechanical account of the animal soul can be given, the human soul might be treated in an equally mechanical way. But, examining the position in its own terms, we are confronted with the difficulty (perhaps impossibility) of establishing any relation between the disparate entities, thought and extension; and it is because of Descartes's notable weakness here that his followers modify the position—that interaction is denied, and occasionalism set up. Malebranche maintains the Cartesian separation and argues that, unless the "neo-Scholastics" believe in the complete spirituality of the animal soul, they are treating it mechanically and should not call it "soul". But he escapes the imputation of being mechanistic by emphasising Providence. "True, animals are machines, he admitted; but the seemingly marvellous intelligence of their actions is simply a further manifestation of the divine intelligence of the Creator" (p. 267). And this formulation, the author says (p. 42), "proved decisive for later Cartesians". It also proved a weakness in their position, however, enabling Voltaire, for example, to accuse them of inconsistency (p. 52) "in utilising examples of animal intelligence to prove its absence". It is just because the Cartesian separation is unsound that every attempt to bolster it up, to overcome its difficulties, leads in the direction of "empiricism" or the *denial* of the separation. The initial effect, however, was to give a religious turn to Cartesianism. "Bossuet, perhaps even more pronouncedly than Malebranche, struck a teleologic note in the controversy, absent in Descartes's own writings but present in so many of the

Cartesian treatises after 1670. Together, Malebranche and Bossuet acted as the turning point in the campaign, which became increasingly as time went on a crusade for the cause of religion".

The movement of thought, of course, was not a purely Cartesian one; it was determined also by the anti-Cartesians, who, however, were influenced by Cartesianism in their choice of problems and the emphasis they put on particular points—indeed, we might say that the *contradictions* in Cartesianism were the moving factor in subsequent thinking, but we should have to recognise that this could be so only if Cartesian doctrine was in a peculiarly intimate relation to the needs of the time. Without putting the matter in this particular way, Mrs. Rosenfield at least realises that Cartesians and anti-Cartesians helped to determine a single trend of thought, and she brings this out in her exposition, in Part Two of the book, of anti-Cartesian theories, "traditional" (i.e. following the lines of pre-Cartesian doctrine) and "empirical". Of the former, Peripateticism (or Scholastic Aristotelianism) was easily the most important. "The Peripatetics clung to the mediaeval concept of substantial material form, a substance intermediate between matter and spirit, capable of sensation but not reflection" (p. 80). The most vigorous proponent of this doctrine, Father Gabriel Daniel, argued *inter alia* (pp. 88, 9) that, if the Cartesian were consistent, he would include men other than himself among the automata, and that occasionalism cannot explain the unique difference between man and beast. But the fact is, as the author indicates, that both Providentialism and Peripateticism tend towards a mechanistic view which embraces humanity; though she does not bring out sharply the reason for this, viz. that both weaken the Cartesian separation of mind and mechanism, the one by setting up an intermediate form, the other by postulating a disposer of things who could operate everything, even man. Whatever difficulties there may be in any event in Cartesianism, it is only by keeping up the sharpest of sharp divisions between what thinks itself and what does not, that

we can avoid a naturalistic outcome. That those who believe in "the great chain of being", whose naturalism takes the form of recognising only differences of degree, are also involved in difficulties, does not affect this fact.

Gassendi's position is a somewhat ambiguous one, since he argues in one place that animals and man differ only in degree and "soul is a function of the organisation of the body" and elsewhere "that the human and animal souls differ in essence, since the former alone is spiritual" (pp. 110, 112). But his advocacy of the former view had the greater influence. The outstanding supporter of "empiricism", however, was Pierre Bayle, who attacked the Peripatetics on the ground of an absolute distinction (allowing of no intermediate condition) between the extended and the spiritual, but, while thus "allying man and beast", combated Descartes's hypothesis of animal mechanism on grounds similar to Daniel's. Though his influence was frequently not acknowledged, he was one of the main agents in the process which culminated in the more thoroughgoing doctrine of La Mettrie, for whom "rational soul and sensitive soul are the same substance" but who, in speaking of man as a machine, merely meant that human activity is included among natural phenomena. "Like Descartes, La Mettrie thought that body operates in accordance with mechanical laws. Unlike Descartes, however, he denied the existence of any soul whose essence is entirely distinct from extended matter. In brief, all soul for La Mettrie seemed conditioned by the organisation of the body, and the superiority of humans over animals he deemed variously a function of their more developed brain structure, bodily organisation or needs" (pp. 143, 4).

It is not surprising that on the whole this doctrine prevailed against both Cartesianism and Peripateticism, opening the way, as it did, for straightforward scientific investigation. The position of "mechanism" is unassailable in so far as it makes the question one of discovering "laws", i.e. given certain conditions, what other conditions are present or will ensue. But this outcome does not account for the

initial vogue of Cartesianism or for the special prominence of the question of animal automatism. And here the questioning of the possibility of our knowing any other "spiritual" being is important. There is absolutely no justification for the extension of the *cogito* to embrace anything other than the cogitating self. While it may be too much to say, as some of the Peripatetics and "empiricists" did, that animals converse, at least there is nothing in *language* to justify the treatment of it as any less a "mechanical" sign of other phenomena than the various characteristics of animal behaviour from which we draw inferences. Nevertheless, it is significant that language and, again, æsthetic appreciation are taken as distinguishing marks; they bring out the fact that the real basis of distinction is not "pure spirit" but social life—or, conceding that animals may have social life of a sort, the kind of social life that men have: a system of production, of law, of culture.

This line of argument is considerably reinforced if it is admitted that *religion* has a social content, that the religious world is a distorted picture of society. To say, then, that animals are not "spiritual" is to say that they do not worship, that they do not participate in a social life of which they require to have a fantastic representation; they do not go to heaven, because they do not have to be compensated for their poverty, their inadequate share of social goods. And here it is interesting to note that the question of animal suffering occupied a considerable place in the controversy on automatism—the Cartesians arguing that animals do not suffer and so purging men's minds of any sense of guilt in regard to them, the anti-Cartesians holding that they do and so developing "humanitarian" views of anti-vivisectionism, vegetarianism and the like. Of more direct social interest is the contention that animals cannot "abstract"; this can be interpreted as meaning that they do not *speculate*, that they do not plan for a return, that they do not "postpone" or abstain, that they have no sense of the future, as participants in a productive system must have, but only of the present (this,

indeed, was definitely argued by some of the Cartesians), or again that they have no sense of rule or law. Of course, the important point in all this is not whether as a matter of fact animals are social or not; it is whether Cartesianism has an underlying content expressible in terms of human society, and so is driven to its sharp distinction between the human and the non-human (more exactly, between the human *spirit* and Nature).

Now the position I wish to put forward tentatively here is that Cartesianism can be linked with rising capitalism, and particularly with a general *commodity* system. And here I would argue that the reduction of all nature to pure extension is consonant with the reduction of all things to a commodity level, to the level of things quantitatively exchangeable with one another, to the level of things *used* and having nothing in them but their use. And, while it is not true of machines that they are things we can grasp and control in all their uses, it is quite commonly believed. But, against things used, we have to have a user, and it is this pure user that is set up by the *cogito*. Such a division cannot, indeed, be maintained, but it is what is required by the "commodity" trend—hence the attractiveness of Cartesianism, hence the prevalence to this day of the illogical *cogito*. Descartes was put to such extraordinary shifts as the diverting of animal spirits by the soul, to make his position appear coherent. But, when the attempt was made to get over such difficulties, the sharp division disappeared and the system crumbled—and the upshot was the doctrine of La Mettrie, in which man could be as much used as user. The doctrine of "differences of degree" deprived the individual of his position as pure entrepreneur—it exposed the social rifts which Cartesianism had concealed, or it concealed them in a new way, a philanthropic way, whereby, as Marx says of "the old materialism" in his "Theses on Feuerbach", a helpful section is set above society and social change is made a function of education.

It would be possible, too, to connect the Peripatetic doctrine of intermediate entities with the hierarchical system of feudalism. But, without dogmatically affirming

these connections, I would at least argue that it is along such lines that one can get an understanding of the history of thought—by seeing, in particular, the *necessary* contradictions in a theory, and not treating them as accidental slips in the course of pure theorising (though, certainly, the theorist would be mainly unaware of the social content of his work). This basic question is not raised by Mrs. Rosenfield; but her exposition of the fluctuations of theory in connection with animal automatism provides, in my view, a valuable basis for socio-philosophical analysis.

The book's value is enhanced by an extensive bibliography, covering both writings of the period and recent commentaries.

JOHN ANDERSON.

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NOTE.

THIS issue of the Journal appears two months late. Readers will understand that the difficulties of production are specially great at the present time. Nevertheless, unless events take a disastrous turn, the Editor fully expects that publication of the Journal will continue and that such serious delays will not recur. Feeling that, even at this time, discussion of such topics as the Journal deals with, serves an important need, he appeals to subscribers and contributors for continued support.

